

PARKING1. General

- A. A minimum physical clearance of 15 feet should be maintained between airplanes to give adequate turning clearances and protection from jet velocities and temperatures at taxi thrust and idle power.
- B. Based on the JT3C-4 installation for standard day condition, with 15 foot clearance between airplanes and at idle thrust, velocity at adjacent airplane would be approximately 18 to 20 mph and temperature would range between 75 to 85 degrees Fahrenheit.

2. Park Airplane

- A. Taxi or tow airplane into position designated for parking.
- B. Set parking brake by applying toe pressure on rudder pedals and then pull up on parking brake handle, located on throttle control stand.
- C. Place wheel chocks on forward and aft side of main gear wheels (two chocks per main gear).
- D. Disconnect and remove tow bar and tractor.
- E. Engage nose gear and both main gear ground down locks to prevent gear retraction.

NOTE: If airplane is towed to parking area, landing gear ground down locks shall be installed as soon as flight crew leaves airplane or before tow truck is attached. Because of high gross weight of airplane, mooring provisions are not provided and should unusual conditions warrant mooring, see 7-1-1, figure 202, for procedure.

MODEL 707	707-24-57 DWG. REC. CLK 6-26-57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ACTION <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: PART IS IN SKYDROL AREA		B ISSUE NO. PRE. 95000 CHG. NO. SEC. NO. 54 1-99 201-1999 CHG. EFF.		CLIP - OFF, WATER SEPARATOR, FWD END DWG TITLE ADCN DRAWING NO. BMT.				
DRAFTED RUTH WEAVER 6-12-57	RELEASE 6-26-57									
CHECKED R. D. H. 6-14-57	R/P GROUP									
STRESS	REQUESTED									
APPROVED										
APPROVED Bailey 6-15-57	PROD. INFO.									
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
		-	60-3245-2000	CLIP SUPPORT, WATER SEPARATOR, FWD END, RIGHT		.031 x 1.8 x 4.2	CLAL 2024-0 SH QQ-A-302-0 TEMPER	T4 SRF 211		R
		-	-2001	CLIP SUPPORT, WATER SEPARATOR, FWD END, LEFT		.031 x 1.8 x 3.2	CLAL 2024-0 SH QQ-A-302-0 TEMPER	T4 SRF 211		R

ADD TO PDL AS SHOWN ABOVE

P APL 001 & ON MUST COMPLY
DETAIL PLNG AFF.
CHG TAB BLOCK AS SHOWN BELOW

54	1	5-84099	707	1 THRU 99, 201 THRU 1999	603245-2001 60-3245-1
54	1	5-84099	707	1 THRU 99, 201 THRU 1999	60-3245-2000 60-3245
AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	
				PART NUMBER	RELEASE COLUMN IND
					DWG SHEET NO.

FUEL SYSTEM

MODEL	707	467-1-57
DRAFTED	SCHNELIE 6/20/7	DWG. REC. CLK 867-1-57
CHECKED	Nelson 8/15/7	RELEASE 7-1-570 B
STRESS		R/P GROUP
APPROVED	4/4/7	R REQUESTED
APPROVED	Bailey 6-21-57	P PROD. INFO.

BOEING AIRPLANE COMPANY

ADVANCE DRAWING CHANGE NOTICE

THE DWG WILL BE CHANGED TO INCLUDE THIS ADON
☐ DEVIATION ☒ VARIATION

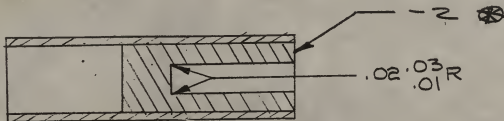
REASON:

PROVIDE FILLET
 RADI FOR SLOT
 IN PLUG - 2

ISSUE NO.	ADAPTER WATER VALVE ASSY OF		
CHG. NO. 95000	DWG. TITLE	DRAWING NO.	SHT
1	ADCN	66-4352	
SEC. NO. 41			
SAME AS			
DWG			
CHG. EFF.			

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
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IN VIEW AS SHOWN ADD RADIUS;



A-A[⊗]

R ELR #164826, HUNGATE, 6-4510 (6-11-7)


P NO PARTS MADE
 PLANNING AFFECTED

⊗ ADCN REF ONLY

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS			PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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1-100

17

MODEL 707		7-1-57 DWG. REC. CLK	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG. WILL BE CHANGED TO INCLUDE THIS ADDN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: TO CORRECT IMPROPER FINISH CALLOUT		B ISSUE NO. PRR-35000 CHG. NO. SEC. NO. 43 1-1999 CHG. EFF.	SUPPORT ASSY WATER PUMP				
DRAFTED RUTH WEAVER	6-21-7	6-27-1-57 RELEASE 7-1-57 H6				DWG. TITLE	ADCN	DRAWING NO.	SHT.	
CHECKED R. Short	6-21-7	B/P GROUP						5-95622	1	
STRESS		6-7000 REQUESTED								
APPROVED										
APPROVED	Bailey 6-22-57	PROD. INFO.								
PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
			1191-4C x 1/2	SLEEVE, STL WIRE (HELI-COIL INSERT) (BAC-313P-4C-4)					F-12.40	

IN P/L ADD FINISH CALLOUT TO SLEEVE AS SHOWN



APL 001 & ON MUST COMPLY

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG. SHEET NO.
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5-70

BOEING AIRPLANE COMPANY
ADVANCE DRAWING CHANGE NOTICE
THE DRAWING WILL BE CHANGED TO INCLUDE THIS AS A VARIATION
REASON: LOCK-WIRING NOT
REQUIRED ON 707 AIRP.

FLR

ENGINEERING LIAISON REQUEST


NEW
ISSUE NO.
ITEM 95000
CHG. NO.
SEC. NO. 22
1-199 &
301-1999
CHG. EFF.

PLUMBING INSTL WATER INJECTION DWG. TITLE SYSTEM- SEC 20		
ADCN	DRAWING NO.	SHT.
1	5-89570	1A

	PLANNING
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PHONE

BOX NO.

DEPT.	REPLACES	BOX NO.	REQD.	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
25		-3002	-3001	1	AN895NC32	LOCK WIRE 	073				

REMOVE FROM PARTS LIST AS SHOWN ABOVE

~~LOCKWIRE OPTIONS AN995 C-32 1/2~~
~~AN995 N-32 INSTALL PER BAC 5018~~

IN GENERAL NOTES DELETE  AS SHOWN ABOVE

IN TUBE P/L CHANGE "NAS593-24H" (A PLACES) TO "NAS593-24" PER BELOW

✓	✓	230	-2011	1	NAS593-24 NAS593-24W	—	2	C3	2	1.50	.035	5052-0 WIN-T-187	—	F2.741			229	
✓		230	-3006	1	NAS593-24 NAS593-24W	—	1	C3	2	1.75	.042	5052-0 WIN-T-187	—	F2.741	34-T11W -W1	VII	65.0	
	✓	230	-3005	1	NAS593-24 NAS593-24W	—	1	C3	2	1.75	.042	5052-0 WIN-T-187	—	F2.741	34-T11W -W1	VII	65.0	
✓	✓	230	-3004	1	NAS593-24 NAS593-24W	—	2	C3	2	1.50	.035	5052-0 WIN-T-187	—	F2.741	34-T11W -W1	VII	25.0	
	DATE	TIME	WORK PRESS PS1	NUMBER	REQD	NUT	SLEEVE	REQD	ZONE	SHT	TUBE	WALL THICK	MATERIAL	HEAT TREAT	FINISH	TURBINE IDENT.	TYPE ENDS	MIN STOCK LEWT
				TUBE	ASSY	END	FITTINGS		ZONE		D.O.							
						PER	TUBE	ASSY	CODE									

PROD. INFO.	EXISTING INSTLS	ACCEPTABLE
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STATUS OF TOOLS
&/OR PLANNINGSTATUS OF COMPLETED
AIRP. &/OR PARTS

64570 6-19-7

6-18-57

$$A \cap B = \{2\}$$

261

POWER PLANT

5-70

ELR NO.	2400	MODEL No.	767	NSL-2637 DWG. REC. CLK 821627157
EDB D. WILLIAMS	6-18-7	RELEASE	6-27-57	B/P GROUP
DRAFTED		NO CHANGE	SEE BELOW	
CHECKED				
STRESS				
APPROVED				

BOEING AIRPLANE COMPANY
ADVANCE DRAWING CHANGE NOTICE
 THE DRAWING WILL BE CHANGED TO INCLUDE THIS AS A VARIATION
 REASON: LOCK-WIRING NOT
 REQUIRED ON 707 AIRP.

NEW	ISSUE NO.
	ITEM 95000
SEC. NO.	22
	1-1999
	301-1999
CHG. EFF.	

PLUMBING INSTL	ADCN	DRAWING NO.	SHT.
WATER INJECTION	1	5-89570	1A
DWG. TITLE			

ORIGINATOR	PHONE
REQ. B. WHITING	3087
APP. J. A. White	
DEPT. C-3060	BOX NO. 81-15

ENGINEERING LIAISON REQUEST
ELR

DEPT.	PLACES	REQD.	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPX. NET)	MATERIAL	HEAT TREAT	FINISH	P
FARTS LIST ZONE										
25										

REMOVE FROM PARTS LIST AS SHOWN ABOVE

~~LOCKWIRE OPTIONS AN995 C-32~~
~~AN995 N-32 INSTALL PER BAC 5018~~

IN GENERAL NOTES DELETE 7 AS SHOWN ABOVE

IN TUBE P/L CHANGE "NAS593-24" (A PLACES) TO "NAS593-24" PER BELOW

✓	✓	230	-2011	1	NAS593-24 NAS593-24H	—	2	C3	2	1.50	.035	5052-0 WN-T-187	—	F27M		224
✓		230	-3006	1	NAS593-24 NAS593-24H	—	1	C3	2	1.75	.042	5052-0 WN-T-187	—	F27M	BAC-T11W -W1	VII 65.0
	✓	230	-3005	1	NAS593-24 NAS593-24H	—	1	C3	2	1.75	.042	5052-0 WN-T-187	—	F27M	BAC-T11W -W1	VIII 65.0
✓	✓	230	-3004	1	NAS593-24 NAS593-24H	—	2	C3	2	1.50	.035	5052-0 WN-T-187	—	F27M	BAC-T11W -W1	VII 25.0
		230			NUMBER REQD	NUT SLEEVE REQD	ZONE SHT	TUBE D.D	WALL THICK	MATERIAL	HEAT TREAT	FINISH	TUBING IDENT.	TYPE	MAIN STOCK LENGTH	
					TUBE ASSY	END FITTINGS PER TUBE ASSY	ZONE CODE									

EXISTING INSTLS ACCEPTABLE

PROD. INFO.	STATUS OF TOOLS &/OR PLANNING	STATUS OF COMPLETED AIRP. &/OR PARTS
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6-19-7
 64518

6-18-57

HP 8/24

261

MODEL 707

DRAFTED ANDERSEN 6-14-7

CHECKED *J. Sullivan* 6-14-57

STRESS

APPROVED

APPROVED *Bailey* 6-17-57

277-2-57
DWG. REC. CLK

277-2-57
RELEASE

7-2-57CB
B/P GROUP

REQUESTED

PROD. INFO.

BOEING AIRPLANE COMPANY

ADVANCE DRAWING CHANGE NOTICE

THE DWG WILL BE CHANGED TO INCLUDE THIS ADDN

☐ DEVIATION ☒ VARIATION

REASON: TO ADD FINISH
CALLOUT. FOR FAYING
SURFACE

ISSUE NO. PRE 35070

CHG. NO. 2

SEC. NO. S4

1-139

301 THRU

CHG. EFF. 1959

BLKHD FTG-STA 620
WATER INJ LINE,
DWG. TITLE WELD ASSY OF

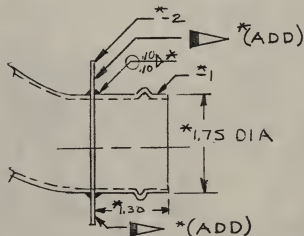
ADCN 2

DRAWING NO. 69-2346

SHT. -

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
		-	69-2346	BLKHD FTG-STA 620 WELD ASSY OF		-	-	T-4	F-2.742	R

IN P/L CHG FINISH CALLOUT ONLY AS SHOWN ABOVE
ADD FLAG & FLAG NOTE AS SHOWN BELOW



*WELD ASSY OF-69-2346

F-2.742
SRF-12.205 FAYING SURFACE



*ADCN REF ONLY


APL 001 & ON MUST COMPLY


AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.

FUEL SYSTEM

6-70

MODEL 707		226-20-57		BOEING AIRPLANE COMPANY SEATTLE 14, WASHINGTON		ISSUE NO.		ADAPTER WATER VALVE ASSY OF			
6/12/77 DRAFTED SCHNELLE		DWG REC CLK 226-20-57		DRAWING DEPARTURE AUTHORIZATION		SEC NO. 41		DWG TITLE			
CHECKED <i>[Signature]</i>		RELEASE 6-21-5708		REASON: THE DWG WILL NOT BE CHANGED		CHG. NO. PER 95000		PDA NO. 1		DRAWING NO. 66-4352	
STRESS		REQUESTED 		TO ALLOW USE OF AVAILABLE MATERIAL		APL'S 1&2 ONLY					
APPROVED		PROD INFO									
APPROVED		SHOP INFO									
APPROVED <i>Bailey 6-13-57</i>		DOR No.				CHG EFF					
PARTS LIST ZONE	REPLACES	REQD.	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P	
			-1	SLEEVE							

 4130 STL TUBE PER MIL-S-6736 NORMALIZED
OPTIONAL: 4130 STL BAR PER MIL-S-6758 NORMALIZED

 ELR# 161071 MEGLING 6-4510 (6-8-7)

AP 6/18

MODEL 707

DRAFTED G. OSTERLOH 6-26-57

CHECKED T. BURDO 5/28/57

STRESS

APPROVED *Donaldson* 1/1/57

APPROVED *RE Hage* 7-27

7-7-57
DWG. REC. CLK
R7711157
RELEASE
7-11-57
B/P GROUP
DONALDSON
6-7000
REQUESTED

BOEING AIRPLANE COMPANY

ADVANCE DRAWING CHANGE NOTICE

THE DWG WILL BE CHANGED TO INCLUDE THIS ADDN

☐ DEVIATION ☐ VARIATION

REASON: ADDED PARTS FOR
FOUR HOLE DRAIN
SYSTEM, CHANGED
FLAG NOTE

4-80 IT

PUMMING INSTALLATION
INBOARD NACELLE

DWG. TITLE STRUT

ADCN DRAWING NO. SHT.

8 50-5547 1

ISSUE NO.
PRR. 10218

CHG. NO.

SEC. NO.
301-1999

1-199
CHG. EFF.

PARTS LIST ZONE	REPLACES		RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
15		X X X X	2 X	MS21907-8C	ELBOW-45° BLKHD						
18		✓ ✓ ✓ ✓	6 X	MS29512-8	GASKET BOSS						
19		X X	1	10-60104	HOSE ASSY			▷ ◁			
16		✓ ✓ ✓ ✓	3 X	AN924-8C	NUT BLKHD						
17		X X X X	1	MS21908-8C	ELBOW 90°						
13		X X X X	1	MS21902-8C	UNION-FLARELESS						
20		✓ ✓	1	10-60104	HOSE ASSY			▷ ◁			
36		2 X 2 X	✓ ✓	1 X	10-60109-1	HOSE ASSY HYD RET					
7		2 X 2 X	✓ ✓	1 X	10-60109-2	HOSE ASSY HYD PRES					
63		2 X 2 X	✓ ✓	1 X	10-60109-3	HOSE ASSY HYD SUP					
74		34 X 34 X 34 X 34 X	1 X	69-2545	CUNN SLIDING TYP FIRE WALL						
75		✓ ✓ ✓ ✓	1 X	10-60108	HOSE ASSY H.P.A.						
84		✓ ✓ ✓ ✓	1	50-B229-5P1	TUBING INST						

CHANGE P/L AS SHOWN ABOVE

CHANGE NOTES AS SHOWN BELOW

▷ ADCN REF ONLY- REPLACING PART WILL BE SHOWN ON ENGINE PLUMBING INSTL.

▷ LIMITED APL. SERIAL NOS. 101-199, + 299, 301-399 501-1999

▷ LIMITED APL. SERIAL NOS 1-99, 301-399

▷ COLOR BAND PER BAC 501 WITH TAPE BAC THIS SIDE

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS				PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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MODEL 707 4/47		DWG REC CLK 276-21-57		BOEING AIRPLANE COMPANY SEATTLE 14, WASHINGTON DRAWING DEPARTURE AUTHORIZATION THE DWG WILL NOT BE CHANGED REASON: TO USE AVAILABLE MATERIAL.				ISSUE No.		FITTING OVERBOARD DRAIN			
DRAFTED TIM TAYLOR		RELEASE RK672F157						SEC. No. 57		DWG TITLE		DRAWING No.	
CHECKED Wick 6/4		6-24-57 CB						CHG. No. 95000		DDA No. 1		66-4312	
STRESS		E. WALLACE REQUESTED 6-4400						APL #1 & #2					
APPROVED		PROD INFO <input checked="" type="checkbox"/>						CHG EFF					
APPROVED		SHOP INFO											
APPROVED Costa 6/4		DCR No.											
PARTS LIST ZONE	REPLACES	REQD.	PART NUMBER	NOMENCLATURE		ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	FINISH	HEAT TREAT	P		

~~2 BLACK NYLON~~

~~1 BLACK NYLON
OPT. MAKE FROM BAC 424H-16~~

1 2 DUPONT WHITE NYLON
ZYTEL #101

ALLOW MATERIAL CHG AS SHOWN

☒ O.P. ITEM.

4-79 1T

MODEL 707		27 62557 DWG. REC. CLK.		BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG. WILL BE CHANGED TO INCLUDE THE ADON <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: RELOCATION OF CABIN PRESSURE CONTROL SYSTEM PRESSURE SOURCE		B		PLUMBING INSTL OUTBD NAC STRUT													
DRAFTED S. Berry		6-18-7				ISSUE NO. PRR 10797		DWG. TITLE		ADCN		DRAWING NO.		SHT.							
CHECKED <i>Randolph</i>		6-26-57 LB				ENG. NO.		5		50-5548		1									
STRESS		B/P GROUP				SEC. NO. 79															
APPROVED 27 6/18		REQUESTED		1-199 & 301-1333																	
APPROVED <i>Ronald</i>		PROD. INFO.		CHG. EFF.																	
PARTS LIST ZONE		REPLACES		REQD		PART NUMBER		NOMENCLATURE		ZONE CODE		STOCK SIZE (APPROX. NET)		MATERIAL		HEAT TREAT		FINISH		P	
NEW		✓✓✓✓		1		MS21313D10		PLUG													
NEW		✓✓✓✓		1		150701-10		PACKING O-RING (BAC PIHK-10)								STILLMAN RUBBER CO		CULVER CITY, CAL. (OR EQV)			

ADD TO P/L AS SHOWN

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS				PART NUMBER	RELEASE COLUMN IND	DWG. SHEET NO.
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9-62 NOT PROCESS IT

MODEL 707-121		817-3-57 DWG REC CLK		BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ADDN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: COMP OF BASIC DESIGN		PROD ILLUST TUBING INSTL DWG. TITLE: SECT 43 BODY		ADCN		DRAWING NO.		SHT.									
DRAFTED D. ANDERSEN		6/20/57				207-3-57		PRR 9500		1		50-2543-5PI		1A1							
CHECKED H. Harrison		4/20/57				7-3-748		CHG. NO.													
CHECKED E. R. Seeling		6-27-7				R1. 707-13		SEC. NO.		43											
APPROVED						REQUESTED		A/P 1-99													
APPROVED ENGR. J. J. J.		6/27-7		PROD. INFO.		CHG. EFF.															
PARTS LIST ZONE		REPLACES		REQD		PART NUMBER		NOMENCLATURE		ZONE CODE		STOCK SIZE (APPROX. NET)		MATERIAL		HEAT TREAT		FINISH		P	

STA 860

STA 820

IN ZN C3 ADD KEEL BEAM & CALLOUT AS SHOWN
IN ZN A1 REVISE SHEET NUMBER AS SHOWN

KEEL BEAM - WATER TANK
SHT. 17-A1

ADD

DELETE

ZN-C3

50-2543 5PI. SHT 1-A1 of 16A1

ADCN REF. ZN A-1 CHANGE TO 17A1

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS				PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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MODEL KC-135 F707	DWG. REC. CLK 27-8-57	BOEING AIRPLANE COMPANY SEATTLE 14, WASHINGTON ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ACTION <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION		OIL TANK ASSY- AC GEN. DRIVE						
DRAFTED D.D. CUMMING	5/14/57 RELEASE 7-8-57 MD			ISSUE NO. PRR 9500	ADCN	DRAWING NO.	SHT			
CHECKED Dutton	5/15/57 B/P UNIT ROHR ENGINEER'S REQUESTED	CHG. NO.	R-75	50-3969	1					
STRESS Eckstein	5/15/57	SEC. NO. 76 (KC-135) 55-3121 FOR (707) 1 THRU 199 301 THRU 1999 CHG. EFF.	R-75	50-3969	1A					
APPROVED		REASON: ① PRESENT TEST MEDIUM NOT CONSISTENT WITH SPEC. REQTS. FOR FILLER CAP. ② NAMEPLATE								
APPROVED Eckstein	5/16/57 PROD. INFO.									
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P

▷ (REASON CONT'D): NOTE DOES NOT INDICATE CLEARLY THE METHOD OF IDENTIFICATION.

- ① ON SH. 1 & 1A REVISE TEST NOTES TO READ AS FOLLOWS: CHG. *
- LEAKAGE TEST: TEST TANK ASSEMBLY, INCLUDING FILLER CAP, WITH OIL PER MIL-L-7808 B TO 10 PSIG. NO LEAKAGE ALLOWED.
- PROOF PRESSURE TEST: TEST TANK ASSEMBLY WITH OIL PER MIL-L-7808 C (WATER OPTIONAL) TO 52 PSIG FOR 2 MINUTES, MINIMUM, NO LEAKAGE OR PERMANENT DEFORMATION ALLOWED. IF FILLER CAP IS INSTALLED DURING PROOF PRESSURE TEST, THE MAXIMUM ALLOWABLE LEAKAGE AT THE FILLER CAP IS 10 CC/HR.

- ② ON SH. 1 REVISE FLAG NOTE ▷ AS FOLLOWS: * ADD
- ▷ ELECTROLYTIC ETCH NAMEPLATE LETTERING DIRECTLY ON THE TANK... ETC.

▷ EXISTING TANKS WITH SEPARATE NAMEPLATES WELDED ON ARE ACCEPTABLE WITHOUT REWORK.

EXISTING ASSY'S SATISFACTORY AS INSTL'D.

* ADCN REF.

REF: BAC TWX TO ROHR 6-4475.3-8218-JLC, DATED 2-26-57

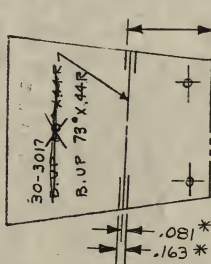
<input checked="" type="checkbox"/> BAC RELEASED	<input checked="" type="checkbox"/> KC-135
<input type="checkbox"/> CANCELLED BY BAC ADCN	<input checked="" type="checkbox"/> 707
CHECKED	K. AXTELL
CHECKED	Dutton
APPROV'D	5/13/57

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS				PART NUMBER	RELEASE COLUMN IND	DWG. SHEET NO.
----------------	----------------	------------------	-------	-------------------------	--	--	--	-------------	--------------------	----------------

WING

2.54 IT ELR 2390

ELR NO.	2390	MODEL NO.	17-12-37 DWG. REC. CLK 7-12-37	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DRAWING WILL BE CHANGED TO INCLUDE THIS ADD AS A VARIATION		ISSUE NO.	SUPPORT ANGLE FUEL LINE W/L 315	
DRAFTED	WILLAFORD	7-3-57	RELEASE	REASON: TO ALLOW ENGIN FUEL TUBES (5-86584) TO ALIGN WITH ANGLE		ITEM 95000	ADCN	DRAWING NO.
CHECKED	E. R. Seeling	7-5-57	7-12-58C B/P GROUP			SEC. NO. 12	1	30-3017
STRESS			NO CHANGE SEE BELOW			1-1999		
APPROVED	Kadul	7-5-57				CHG. EFF.		
ORIGINATOR	WHITING	PHONE 2964		ENGINEERING LIAISON REQUEST		PLANNING	PHONE	
REQ.	W. H. Link	2954						
APP.		2954						
DEPT.	6-3060	BOX NO. 81-15				BOX NO.		
PARTS LIST ZONE	REPLACES	REQD.	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT
								FINISH P



THIS DISTANCE TO *
REMAIN THE SAME

CHANGE ANGLE OF BEND TO 73° AS SHOWN

* ADCN REF. ONLY

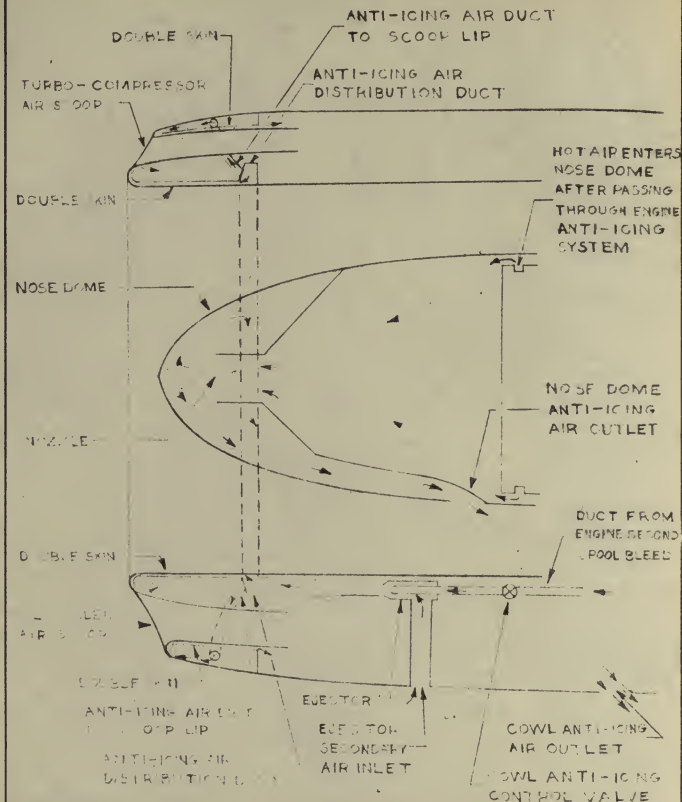
AIRP SEC NO	QTY PER AIRP	USED ON DWG NO	MODEL	AIRPLANE SERIAL NUMBERS				PART NUMBER	APR 7-1957
PROD. INFO. AIRP 001 IN ACCORD, REWORK EXISTING PARTS & INSTL'S									
STATUS OF TOOLS &/OR PLANNING						STATUS OF COMPLETED AIRP. &/OR PARTS			

64510 7-5-7

7-2-57

11

ARROWS (→) INDICATE DIRECTION OF ANTI-ICING AIR FLOW



CALC		REVISED	DATE	NOSE DOME AND COWL ANTI-ICING SYSTEMS	707
CHECK					
APPD					
APPD					
BOEING AIRPLANE COMPANY SEATTLE 24, WASHINGTON					PAGE 9

- b. Jack point load limitations
 - (1) Fuselage load limits
 - (a) forward body
 - (b) aft body
 - (2) Landing gear
 - (a) main gear
 - (b) nose gear
 - (3) Wing
 - (a) inboard wing
 - (b) outboard wing
- 5. Leveling and weighing
 - a. Leveling pad locations
 - (1) Center section
 - (2) Nose section
 - b. Leveling procedure
 - (1) Jacking
 - (2) Use of leveling equipment
 - (a) leveling provision scale
 - (b) use of engineers level
 - (3) Alignment
 - (a) location of points
 - (b) alignment procedure
 - c. Weighing equipment and procedure
 - (1) Electronic weighing kit
 - (a) description
 - (b) operation
 - (2) Weighing procedure

- (1) Nose gear
 - (a) lock rod location
 - (b) lock handle installation
 - (c) lock handle emergency release
- (2) Main gear
 - (a) lock description and location
 - (b) lock installation

b. Covers

- (1) Pitot
 - (a) type
 - (b) installation and removal
- (2) Engine
 - (a) intake
 - (b) tailpipe
- (3) Vents and ducts
 - (a) types
 - (b) locations
- (4) Surface covers

4. Jacking

a. Jack pad locations

- (1) Station numbers
 - (a) fuselage jack points
 - (b) landing gear jack points
- (2) Jack pad heights
 - (a) inboard wing
 - (b) forward body
 - (c) aft body
 - (d) outboard wing



- (a) temperatures
 - (b) velocities
- (2) Danger areas
 - (a) inlet duct area
 - (b) exhaust area
- (3) Blast fences
 - (a) distances
 - (b) velocity and noise reduction
- (4) Engine noise levels
 - (a) decibel ratings
 - (b) suppressor effects

2. Towing

a. Tow bar

- (1) Description
 - (a) length
 - (b) load limits
 - (c) shear pin

b. Attach points

- (1) Main gear
 - (a) forward lugs
 - (b) aft lugs

- (2) Nose gear

c. Turning radii

- (1) Nose gear
 - (a) steering angle
 - (b) swivel arrangement

3. Ground locks and covers

a. Locks



- d. Service area lighting
 - (1) Junction boxes
 - (2) Air conditioning compartments
 - (3) Tail cone
 - (4) Wheel wells
- e. Exterior lighting
 - (1) Landing lights
 - (a) inboard
 - (b) outboard
 - (2) Runway turn-off and taxi lights
 - (3) Position lights
 - (a) wing
 - (b) tail cone
 - (4) Anti-collision beacons
 - (a) upper
 - (b) lower
 - (5) Wing illumination

M. Ground Handling

4 Hours 1, 2, 3, 6, 8

1. Parking

- a. Typical parking
 - (1) Nose in
 - (2) Nose out
 - (3) Parallel
- b. Engine ground run clearance
 - (1) Idle and taxi



a. Crew compartment

(1) General lighting

- (a) dome lights
- (b) emergency lights

(2) Special lights

- (a) main instrument panel
- (b) overhead switch panel
- (c) circuit breaker panels
- (d) radar panel
- (e) aisle stand aft panels
- (f) engineer's station
- (g) navigator's station
- (h) aisle stand
- (i) map reading
- (j) brief case
- (k) auxiliary panel
- (l) standby magnetic compass

b. Passenger compartment

(1) General lighting

- (a) dome
- (b) cove
- (c) lavatories

(2) Special lights

- (a) reading
- (b) galley
- (c) entry
- (d) lavatory mirror
- (e) coat compartment
- (f) passenger signs
- (g) emergency exit

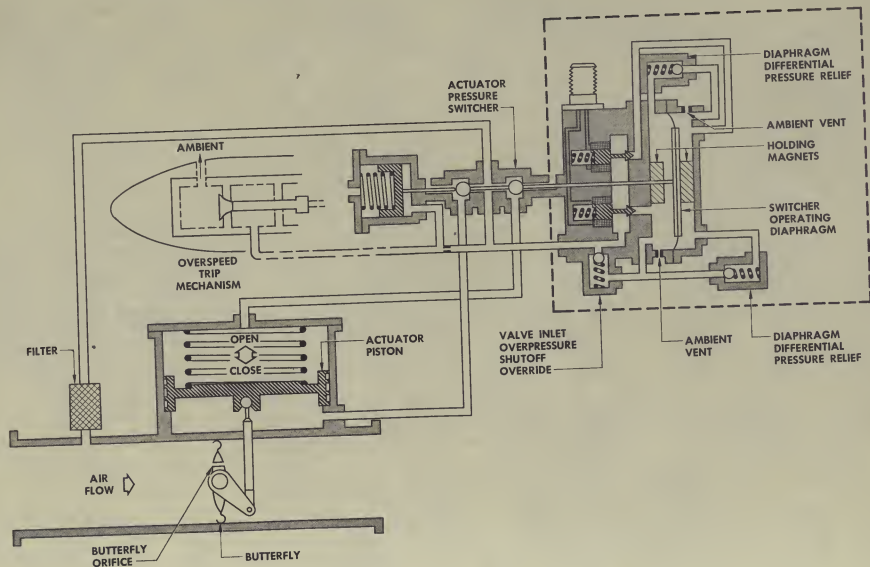
c. Cargo and lower forward compartments

(1) General lighting

- (a) forward cargo compartment
- (b) aft cargo compartment
- (c) lower section 41

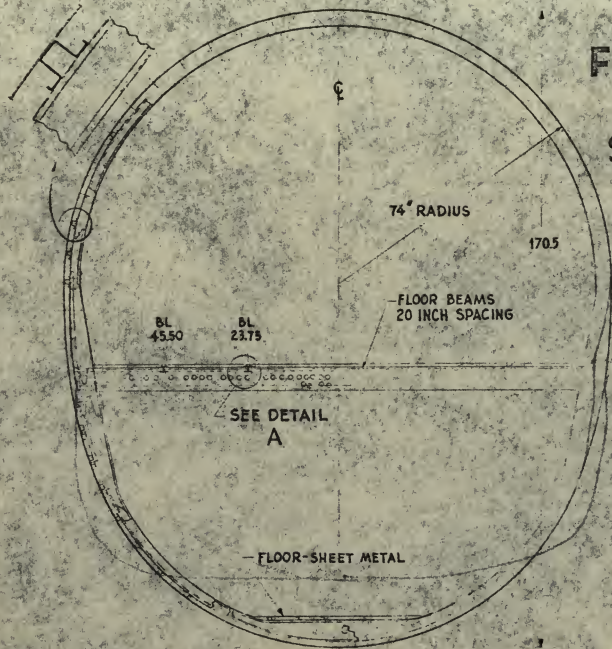


☒ ART - ~~FOR~~ WRITTEN[illegible]

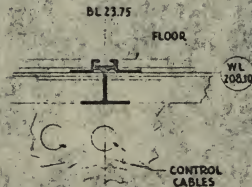


PRESSURE OVERRIDE SHUTOFF VALVE

FUSELAGE CROSS SECTION

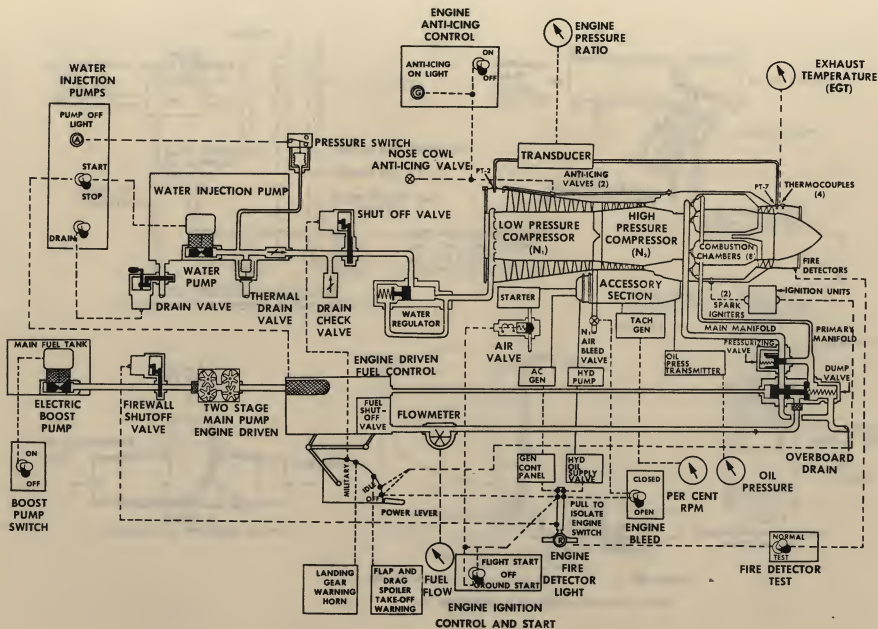


WL 208.10

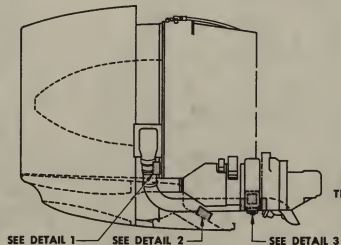
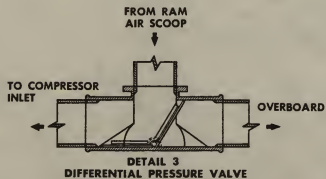
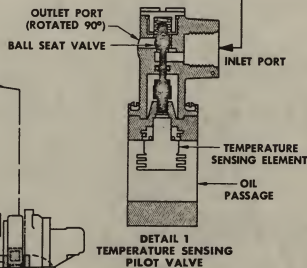
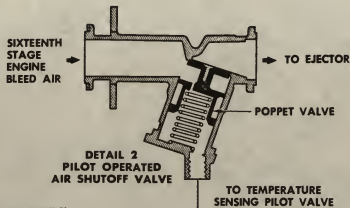
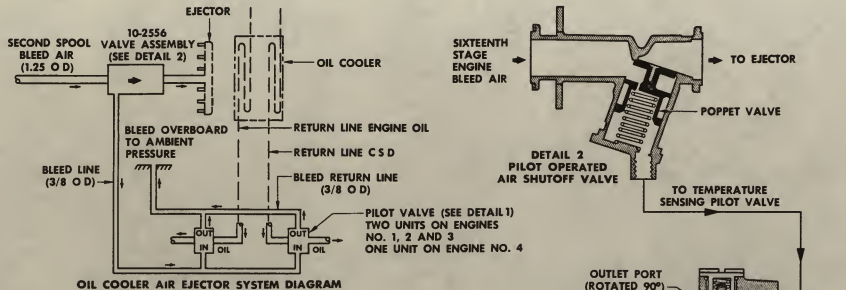


121-71-9

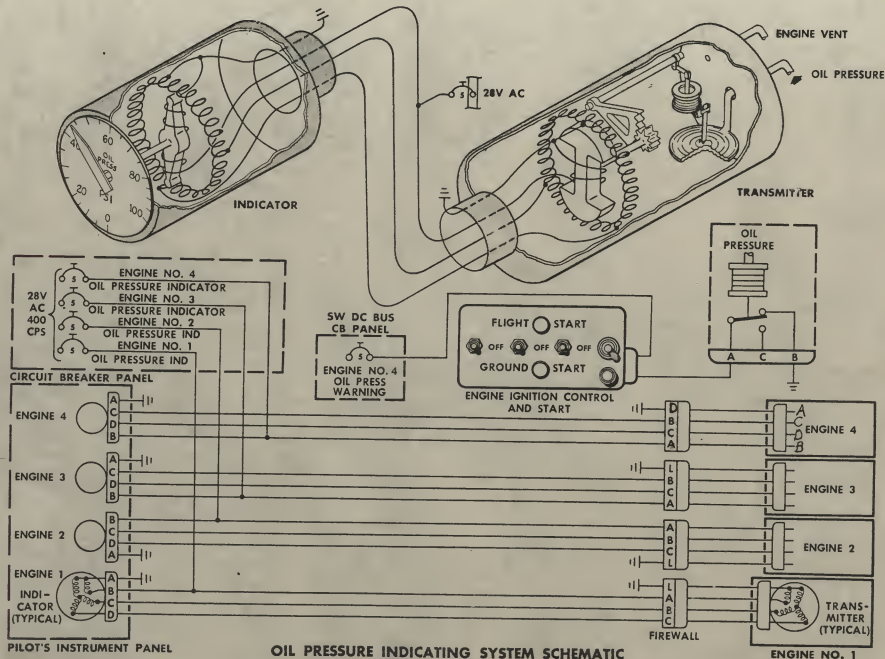
Eng front.

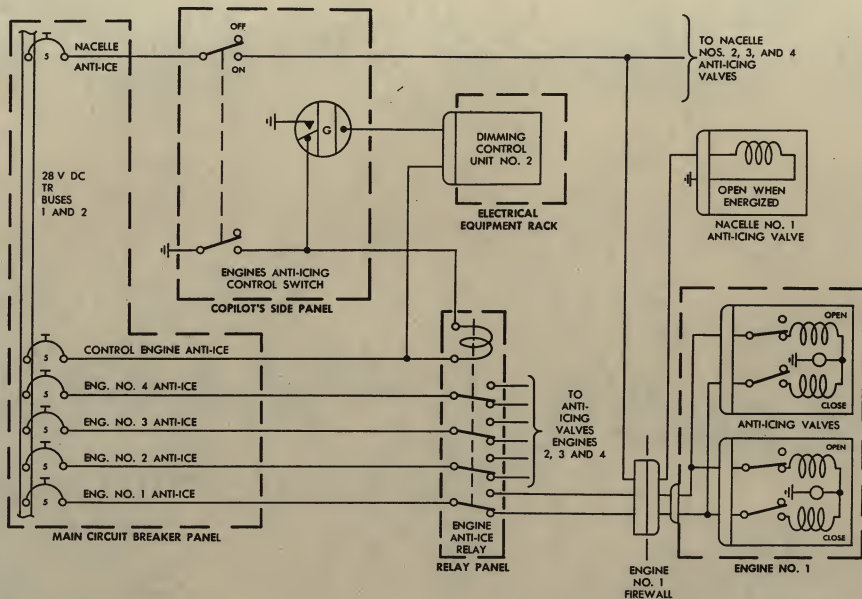


ENGINE OPERATION AND CONTROL DIAGRAM

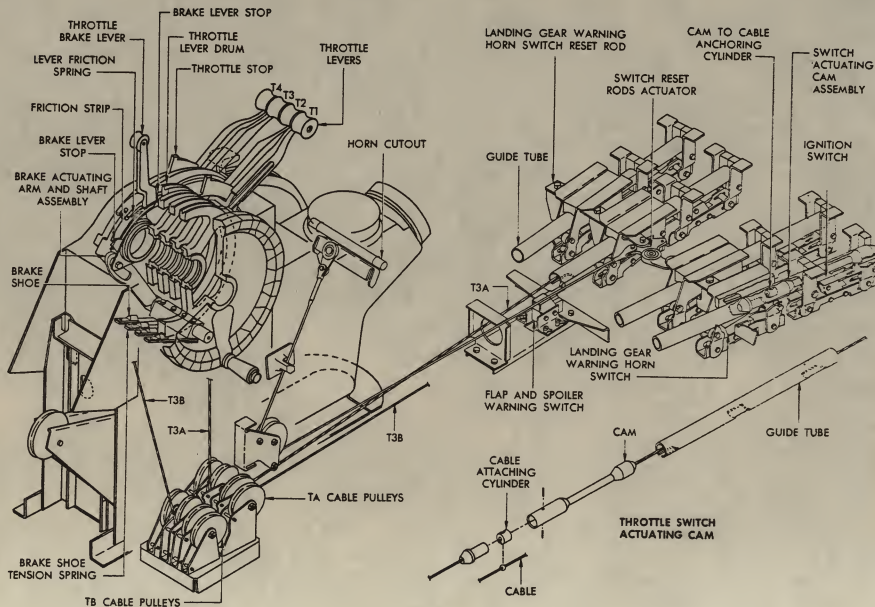


ENGINE ACCESSORY COOLING DIAGRAM

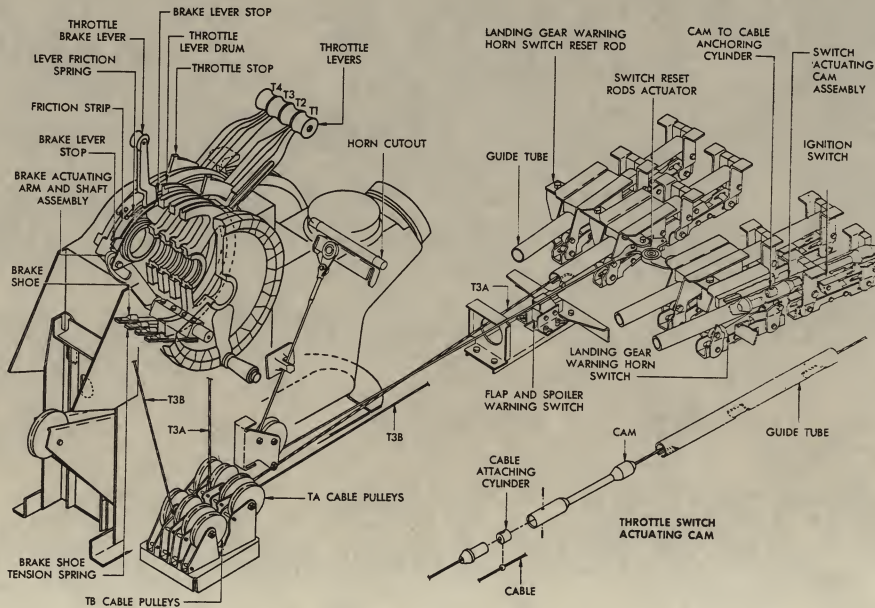




ENGINE AND NACELLE ANTI-ICE CONTROL CIRCUIT



THROTTLE CONTROL LINKAGE - SECTION 41



THROTTLE CONTROL LINKAGE—SECTION 41

WATER INJECTION PUMPS

PUMP OFF LIGHT (A)

START

STOP

DRAIN

WATER INJECTION PUMP

WATER PUMP

DRAIN VALVE

THERMAL DRAIN VALVE

DRAIN CHECK VALVE

SHUT OFF VALVE

WATER REGULATOR

ENGINE DRIVEN FUEL CONTROL

FUEL SHUT-OFF VALVE

FLQWMETER

MILITARY

IDL OFF

POWER LEVER

LANDING GEAR WARNING HORN

FLAP AND DRAG SPOILER TAKE-OFF WARNING

ENGINE ANTI-ICING CONTROL

ANTI-ICING ON LIGHT

ON

OFF

ENGINE PRESSURE RATIO

TRANSDUCER

ANTI-ICING VALVES (2)

LOW PRESSURE COMPRESSOR (N₁)

HIGH PRESSURE COMPRESSOR (N₂)

COMBUSTION CHAMBERS (8)

STARTER

AIR VALVE

AC GEN

HYD PUMP

GEN CONT PANEL

HYD OIL SUPPLY VALVE

PULL TO ISOLATE ENGINE SWITCH

ENGINE FIRE DETECTOR LIGHT

ENGINE BLEED

CLOSED

OPEN

PER CENT RPM

OIL PRESSURE

OVERBOARD DRAIN

DUMP VALVE

PRIMARY MANIFOLD

MAIN MANIFOLD

SPARK IGNITERS (2)

IGNITION UNITS

FIRE DETECTORS

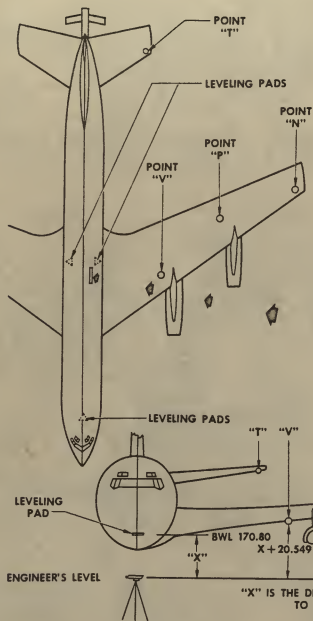
THERMOCOUPLES (4)

PT-2

EXHAUST TEMPERATURE (EGT)

FIRE DETECTOR TEST

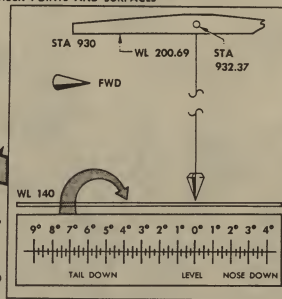
ENGINE IGNITION CONTROL AND START



ALIGNMENT CHECK POINT LETTER	LOCATION	BODY STATION	BODY BUTTOCK LINE	BODY WATER LINE	TYPE OF ALIGNMENT POINT
N	WING	1148.970	758.640	242.907	CENTER OF CSK LOCK BOLT
P	WING	1016.301	494.546	212.533	CENTER OF CSR HI-SHEAR RIVET
T	STAB	1648.378	220.392	282.399	CENTER PUNCHED RIVET HEAD
V	WING	813.430	282.836	191.349	CENTER OF CSK LOCK BOLT
LEVELING PAD	BODY	264.00	LH 8BL 16.00	170.80	
LEVELING PAD	BODY	879.50	LH AND RH 61.00	201.80	

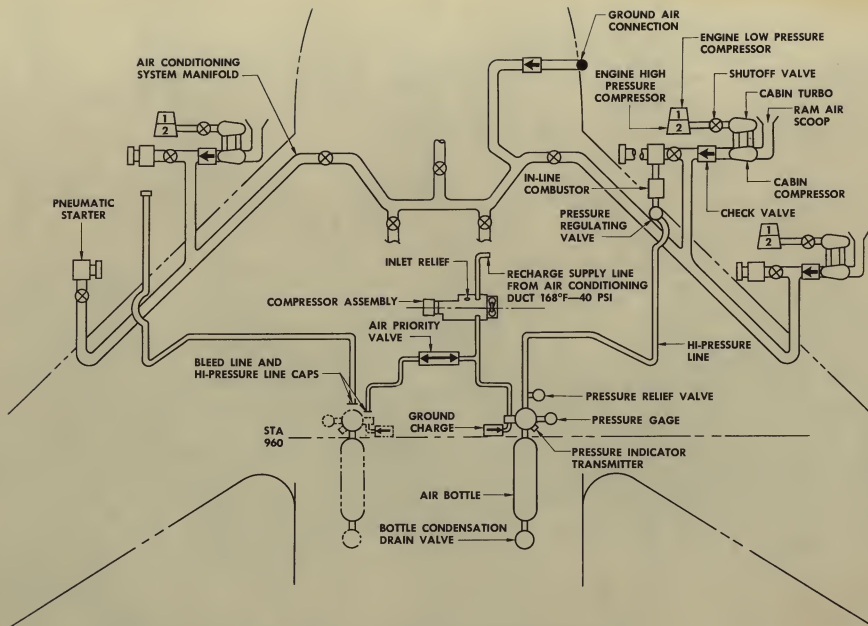
ALIGNMENT CHECK POINTS AND SURFACES

NOTE:
ALIGNMENT CHECK POINTS SHOWN ARE TYPICAL—OTHER ALIGNMENT POINTS MAY BE USED

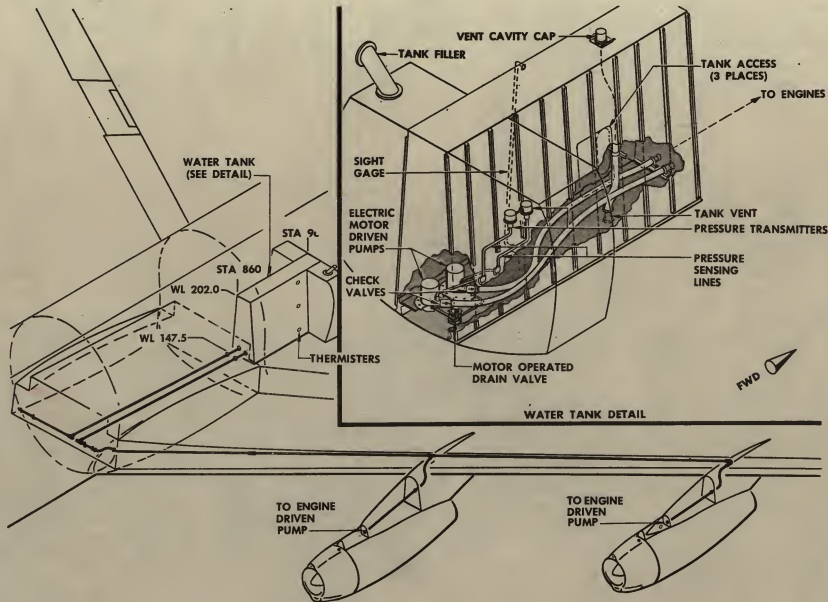


LEVELING PROVISION SCALE

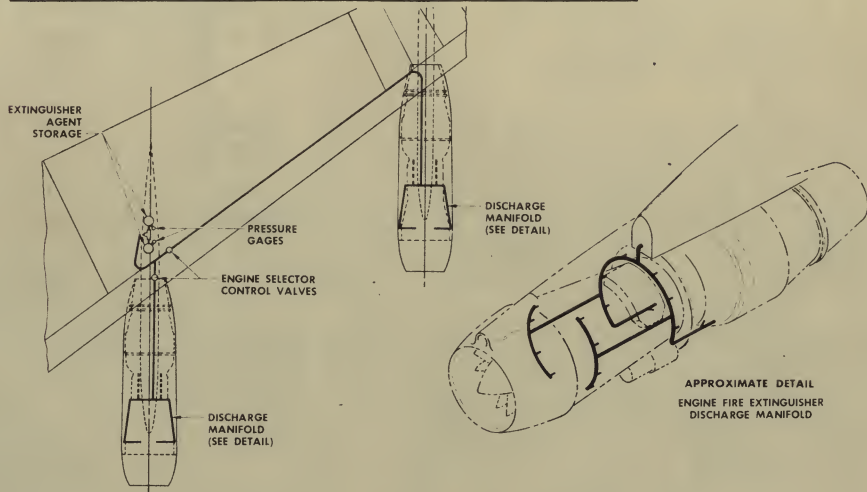
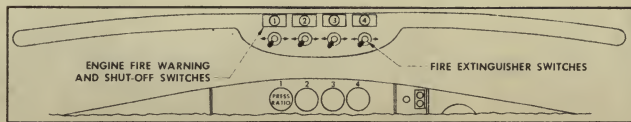
LEVELING EQUIPMENT



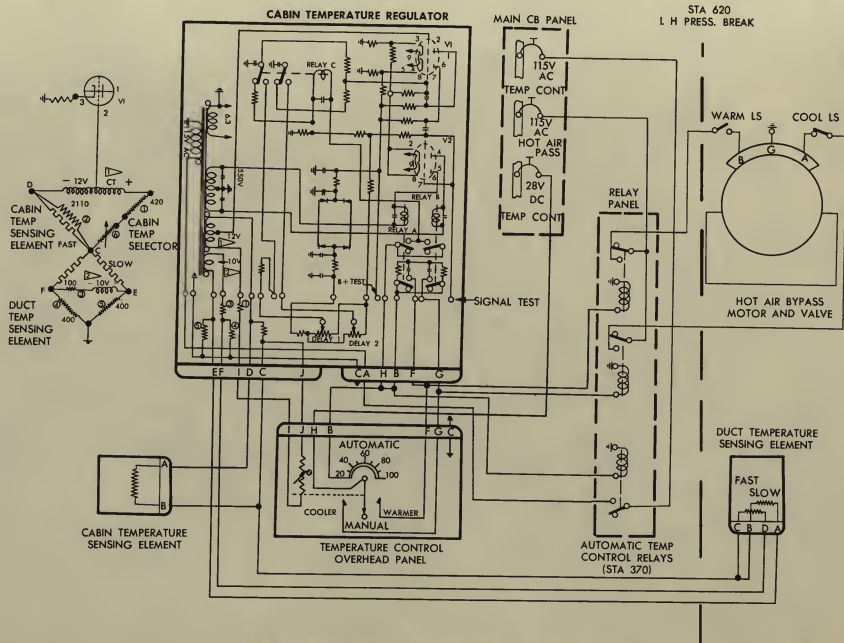
ENGINE FUEL-AIR AND PNEUMATIC STARTER SYSTEM

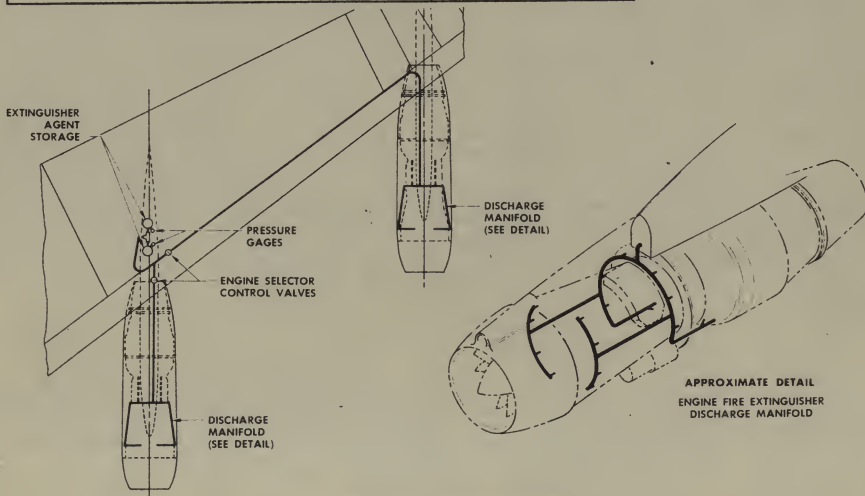
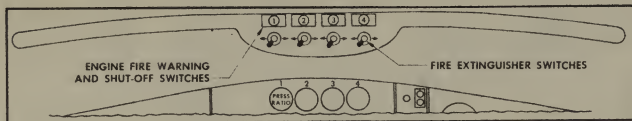


ENGINE WATER INJECTION SYSTEM

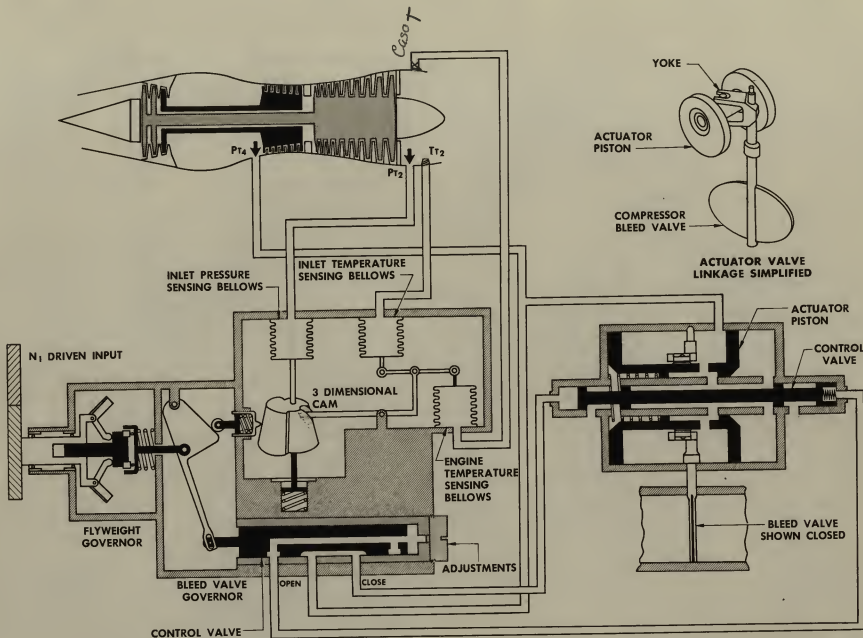


ENGINE FIRE EXTINGUISHING SYSTEM

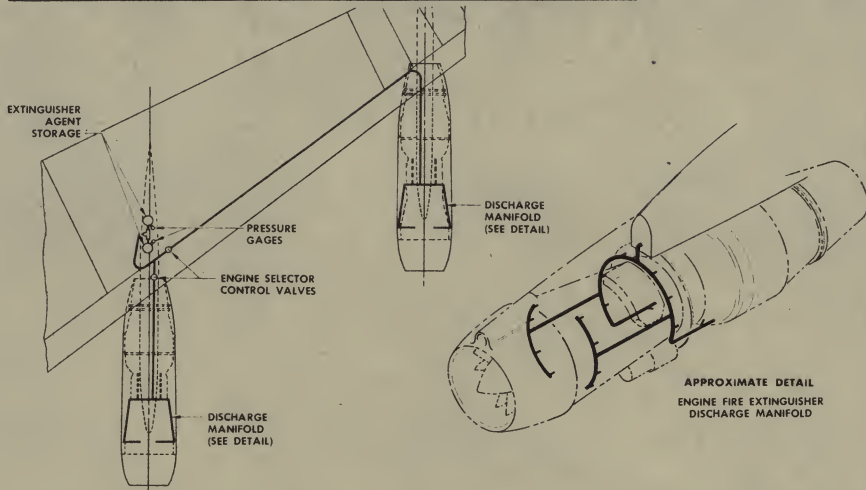
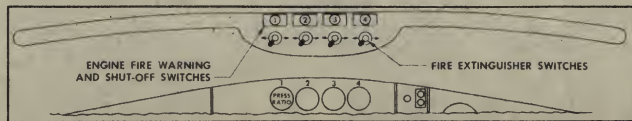




ENGINE FIRE EXTINGUISHING SYSTEM



SURGE BLEED CONTROL



ENGINE FIRE EXTINGUISHING SYSTEM

707 COMPANY TRAINING

COURSE NO. 707-002

GENERAL FAMILIARIZATION

CURRICULUM

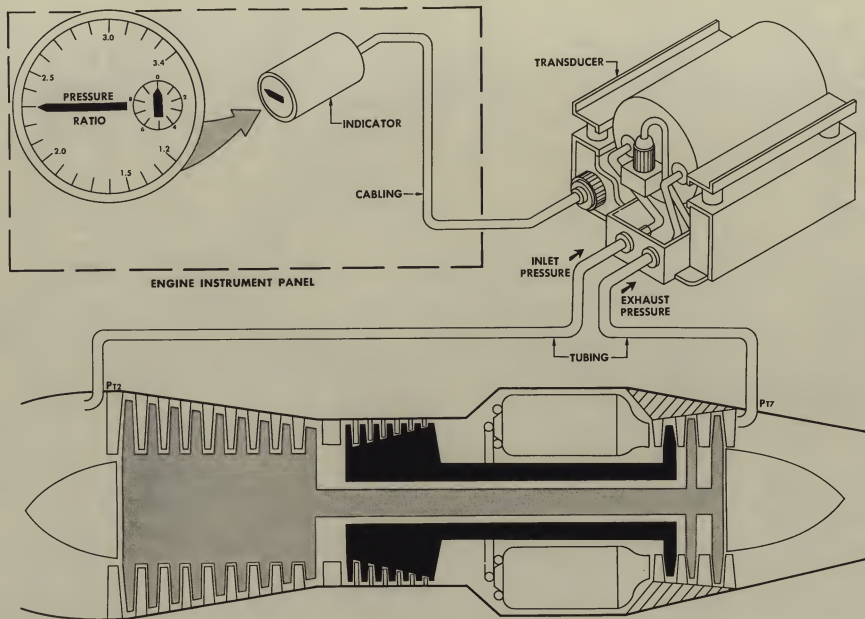
<u>DAY</u>	<u>SUBJECT</u>	<u>HOURS</u>	<u>INSTRUCTOR</u>
Nov. 11 (Mon.)	Orientation	$\frac{1}{2}$	Gumtow
	Airplane General Description	$\frac{1}{2}$	Allen
	Structures	2	Allen
	Power Plant	5	Monchil

Nov. 12 (Tues.)	Electrical Power	$3\frac{1}{2}$	Sorensen
	Fuel Systems	$3\frac{1}{2}$	Schmidt
	Pneumatic System	1	Trimble

Nov. 13 (Wed.)	Air Conditioning and Pressurization Systems	3	Trimble
	Ice Elimination, Defogging and Rain Protection	1	Trimble
	Hydraulic (Power Supply)	1	Lyon
	Landing Gear	3	Lyon

Nov. 14 (Thurs.)	Landing Gear (Con't)	1	Lyon
	Flight Controls	3	Cole
	Autopilot	1	Cole
	Communication & Navigation Equipment	2	Norton
	Miscellaneous Systems	1	Bain

Nov. 15 (Fri.)	Miscellaneous Systems (Con't)	3	Bain
	Ground Handling and Servicing	2	Monchil
	Operation and Performance	3	Rowland



ENGINE PRESSURE RATIO SYSTEM SCHEMATIC

- (a) jack points used
- (b) electronic weighing cells

6. Hoisting and equipment

a. Hoisting slings and attach points

(1) Empennage attach points

- (a) elevators
- (b) stabilizer
- (c) vertical fin

(2) Engine removal and installation equipment

- (a) hoisting sling
- (b) hydraulic dolly

(3) Special tools

7. Examination and review

N. Servicing

8 Hours 1, 2, 3, 6, 8, 9,
10, 11

1. Servicing equipment

a. Carts and trucks

(1) Fuel truck

- (a) service locations
- (b) pressure requirements
- (c) flow rate

(2) Baggage and cargo

- (a) type
- (b) service location

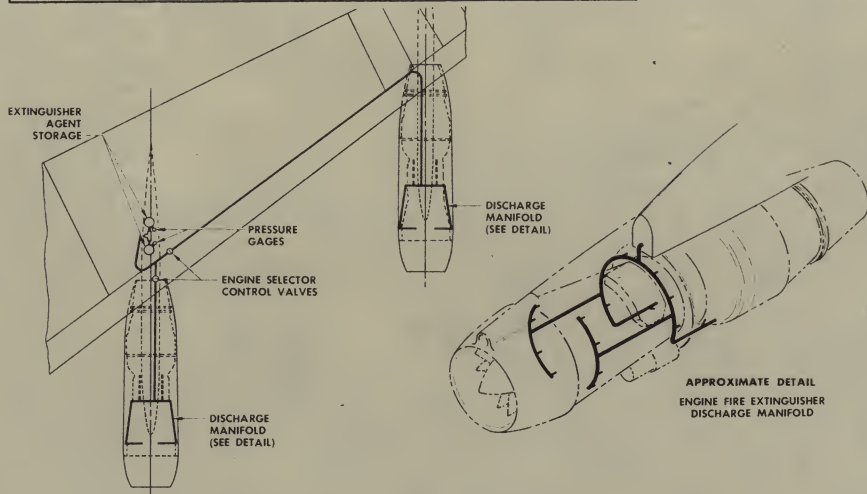
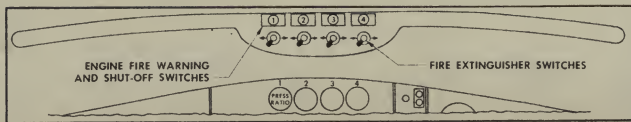
(3) Galley cart

- (a) type
- (b) service location

(4) Water service cart



10:30	- 11:20	Engine General	50	
12:00	12:25	" " continued	25	mounting etc.
1225	1250	Bleed systems	25	
1250	0115	Oil Sys.	25	
0115	0140	Water Injection	25	
Break				
0200	0220	Fire Protection	15	
0220	0235	Engine Instruments	15	
0235	0250	Engine Controls	15	
0300	0325	Fuel & Ignition	25	
0325	0350	Start Sys.	25	
0350	0400	Thrust Reverser	10	



ENGINE FIRE EXTINGUISHING SYSTEM

Call on thrust reverser ^{Ken Farri's}

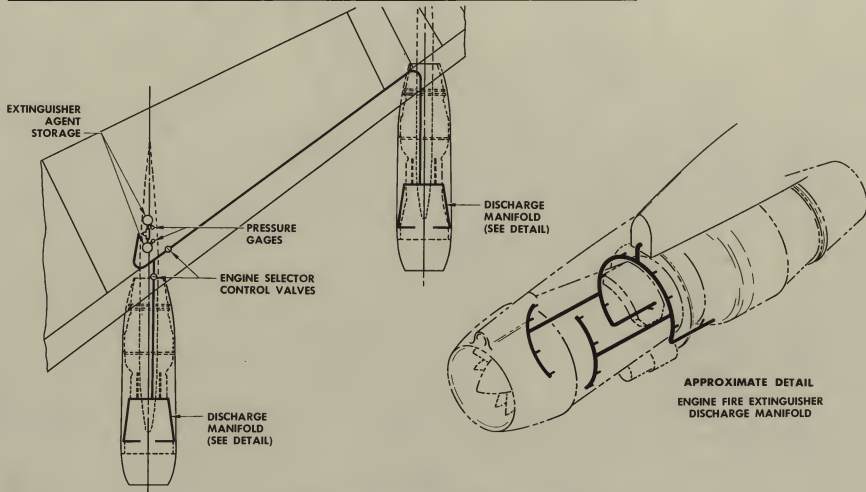
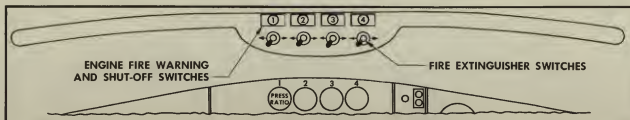
Iver Pollard - spares

2665

|||||

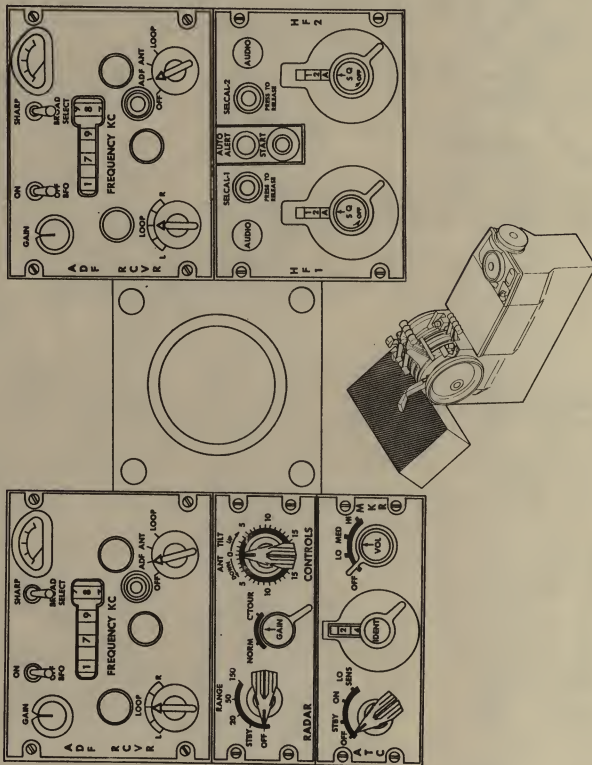
<u>DAY</u>	<u>SUBJECT</u>	<u>TIME</u>	<u>INSTRUCTOR</u>
2nd	Fuel Systems	8:00 9:30	LaViolette
	Coffee Break	9:30 9:50	
	Fuel Systems (Con't)	9:50 10:20	LaViolette
	Cabin Air Conditioning & Pressurization Systems	10:20 12:30	Spicer
	Lunch	12:30 1:30	
	Ice Elimination, Defogging and Rain Protection	1:30 2:30	Spicer
	Hydraulics	2:30 2:50	Smith
	Break	2:50 3:00	
	Landing Gear	3:00 4:00	Smith

ATA 100 for use in setting up
trouble shooting charts



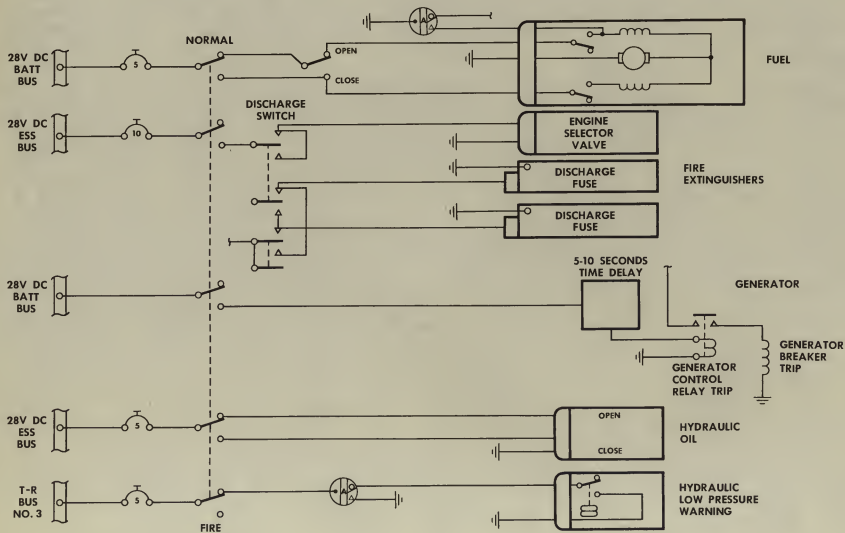
ENGINE FIRE EXTINGUISHING SYSTEM

21-26-2 rev B



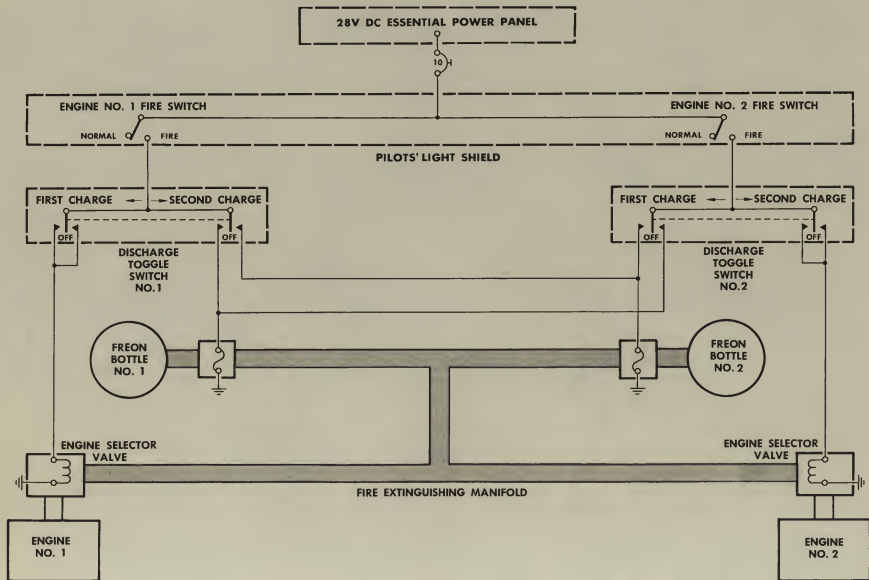
Forward Electronic Control Panel

Figure 1

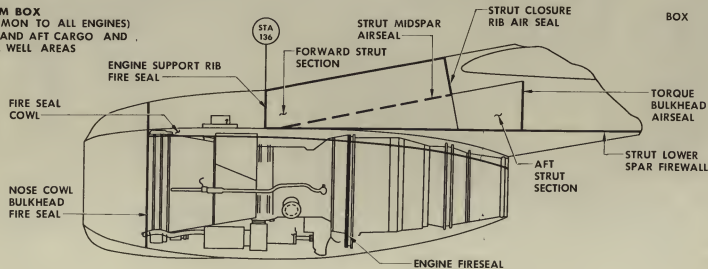
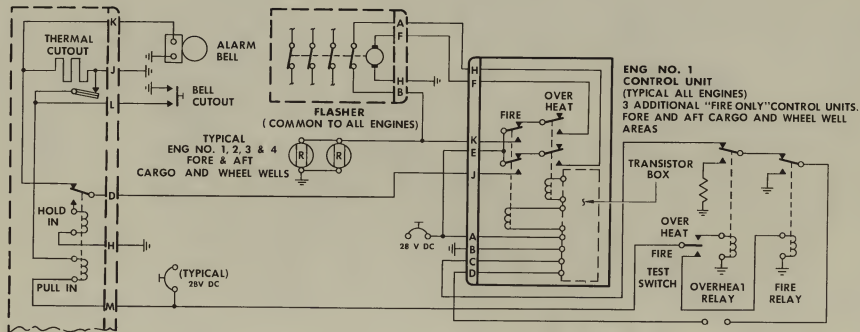


ENGINE FIRE SWITCH SCHEMATIC

121-26-3



ENGINE FIRE EXTINGUISHING SYSTEM CONTROL

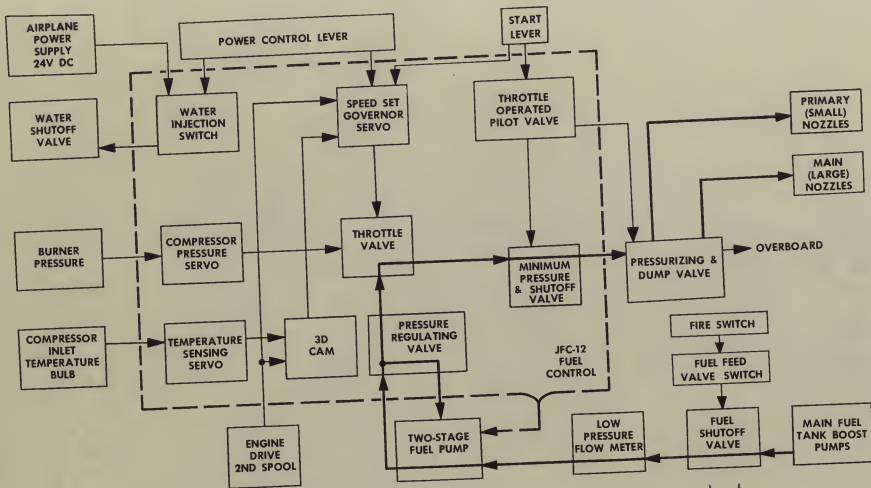


ENGINE FIRE DETECTOR

I s This

Anything
interesting to you?

It was in garage,
M. H.



ENGINE FUEL SYSTEM BLOCK DIAGRAM

cancelled

☒ APT ORDER
WRITTEN
TRANSPARENCY
RELEASED

☒ CHANGE ART ORDER
WRITTEN
LATEST RELEASED
CHANGE ART ORDER

☐ USE THIS
AIRLINE
TRANSPARENCY

PV — ORIGINAL PASTE-UP
BROCH — FOR BROCHURE
SL — FOR SERVICE
LIAISON

ART ORDER NUMBER	SECTION 80 STARTING	PAA 121	AA 123	CAL 124	TWA 131	OEA 138	CUB 139	VARIG			BNF 227		PAA 321	AF 328	SAB 329	TWA 331	LUFT 430	BOAC 436	ALL 437
80-1	Engine Fuel - Air And Pneumatic Starter System	PV B																	
80-2	Engine Start Circuit	PV A																	
80-3	Engine Pneumatic Starter Control System	PV A																	
80-4	Air Turbine Starter	PV X																	
80-5	Starter Clutch Schematic	PV A																	
80-6	Combustion Starter Air Distrib- ution	PV X																	

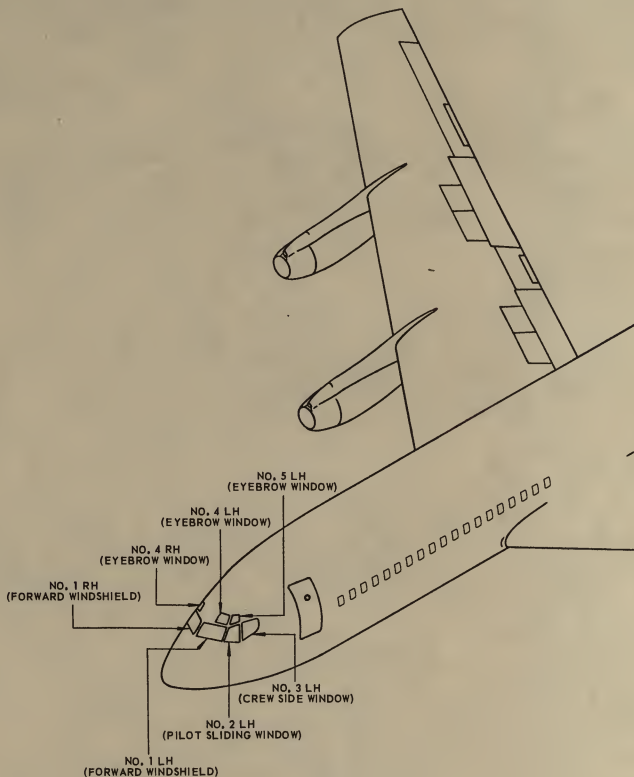
☒ APT ORDER
 WRITTEN
☒ TRANSPARENCY
 RELEASED

☒ CHANGE ART ORDER
 WRITTEN
☒ LATEST RELEASED
 CHANGE ART ORDER

☒ USE THIS
 AIRLINE
 TRANSPARENCY

PU — ORIGINAL PASTE-UP
 BROCH — FOR BROCHURE
 SL — FOR SERVICE
 LIAISON

ART ORDER NUMBER	SECTION 12 SERVICING	PAA 121	AA 123	CAL 124	TWA 131	QEA 138	CUB 139	VARIG	BNF 227	PAA 321	AF 328	SAB 329	TWA 331	LUFT 430	BOAC 436	AIL 437
12-1 10-1-60 116-202	Typical Terminal Servicing Arrangement	PU <input checked="" type="checkbox"/> C	PU <input checked="" type="checkbox"/> B	SL <input checked="" type="checkbox"/> X	BROCH	BROCH			SL <input checked="" type="checkbox"/> X	SL <input checked="" type="checkbox"/> A	BROCH	BROCH	SL <input checked="" type="checkbox"/> B	SL <input checked="" type="checkbox"/> X	PU <input checked="" type="checkbox"/> X	BROCH
12-2	Walkways, Access Doors and In- spection Openings - Top View	BROCH			BROCH	BROCH					BROCH	BROCH			PU <input checked="" type="checkbox"/> X	BROCH
12-3	Access Doors and Inspection Openings - Bottom View	SL <input checked="" type="checkbox"/> B			BROCH	BROCH					BROCH	BROCH			PU <input checked="" type="checkbox"/> X	BROCH
12-4	Four Point Refueling Requirements	PU <input checked="" type="checkbox"/> SL <input checked="" type="checkbox"/> X	SL <input checked="" type="checkbox"/> X	SL <input checked="" type="checkbox"/> X	SL <input checked="" type="checkbox"/> X	SL <input checked="" type="checkbox"/> X			SL <input checked="" type="checkbox"/> X	PU <input checked="" type="checkbox"/> SL <input checked="" type="checkbox"/> X	SL <input checked="" type="checkbox"/> A	SL <input checked="" type="checkbox"/> X	SL <input checked="" type="checkbox"/> A	SL <input checked="" type="checkbox"/> X	SL <input checked="" type="checkbox"/> X	SL <input checked="" type="checkbox"/> X
12-5	Cabin Temperature VS Time - Chrysler Air Temperature (22 Ton)	PU <input checked="" type="checkbox"/> SL <input checked="" type="checkbox"/> X	SL <input checked="" type="checkbox"/> X	SL <input checked="" type="checkbox"/> X	SL <input checked="" type="checkbox"/> X	SL <input checked="" type="checkbox"/> X			SL <input checked="" type="checkbox"/> X	SL <input checked="" type="checkbox"/> X	SL <input checked="" type="checkbox"/> X	SL <input checked="" type="checkbox"/> X	SL <input checked="" type="checkbox"/> X	SL <input checked="" type="checkbox"/> X	SL <input checked="" type="checkbox"/> X	SL <input checked="" type="checkbox"/> X
12-6	Cabin Temperature VS Time - GTCP 185 Pneumatic Cart	PU <input checked="" type="checkbox"/> SL <input checked="" type="checkbox"/> X	SL <input checked="" type="checkbox"/> X	SL <input checked="" type="checkbox"/> X	SL <input checked="" type="checkbox"/> X	SL <input checked="" type="checkbox"/> X			SL <input checked="" type="checkbox"/> X	SL <input checked="" type="checkbox"/> X	SL <input checked="" type="checkbox"/> X	SL <input checked="" type="checkbox"/> X	SL <input checked="" type="checkbox"/> X	SL <input checked="" type="checkbox"/> X	SL <input checked="" type="checkbox"/> X	SL <input checked="" type="checkbox"/> X
12-7																
12-8	Typical Terminal Service - Left Side	PU <input checked="" type="checkbox"/> X														
12-9	Typical Terminal Service - Right Side	PU <input checked="" type="checkbox"/> X														
12-10	Tire De-Mounting Tool									PU <input checked="" type="checkbox"/> SL <input checked="" type="checkbox"/> X				SL <input checked="" type="checkbox"/> X	SL <input checked="" type="checkbox"/> X	SL <input checked="" type="checkbox"/> X



⁸
f-4683

SE 4951

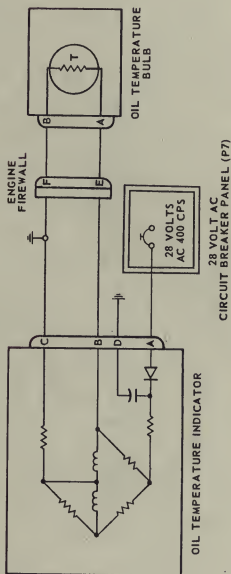
Ginter 363

⁺
Scott Hinkley 8
#-3561
L.E. Buehart

$\frac{125}{2} = 62.5$

$$\frac{5}{16} = \frac{250}{625}$$

$$3 \overline{) 2.50}$$

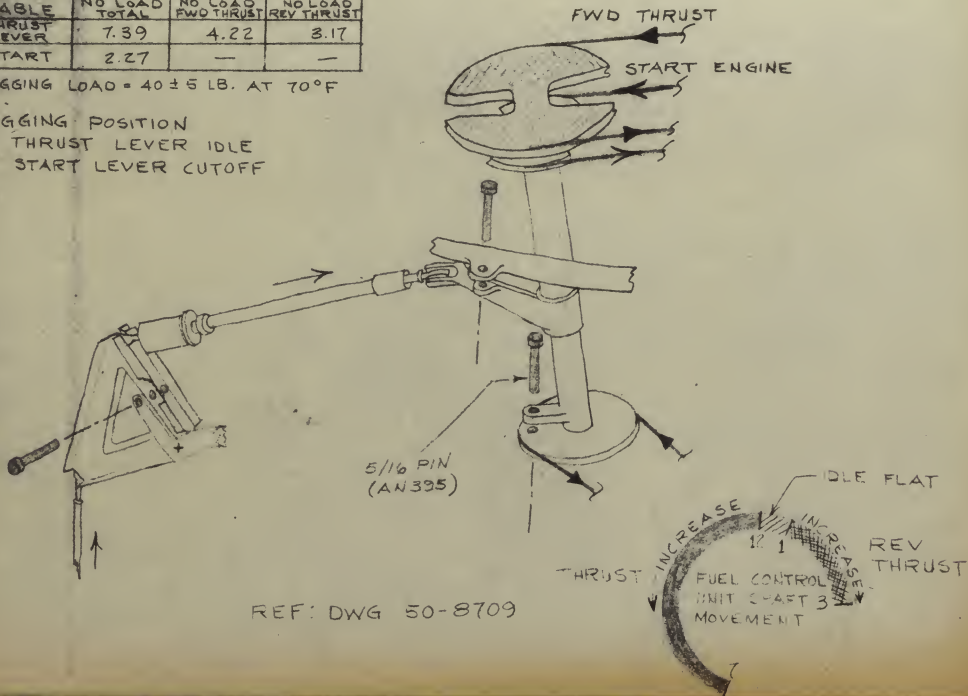


Oil Temperature Indicating System Schematic
Figure 1

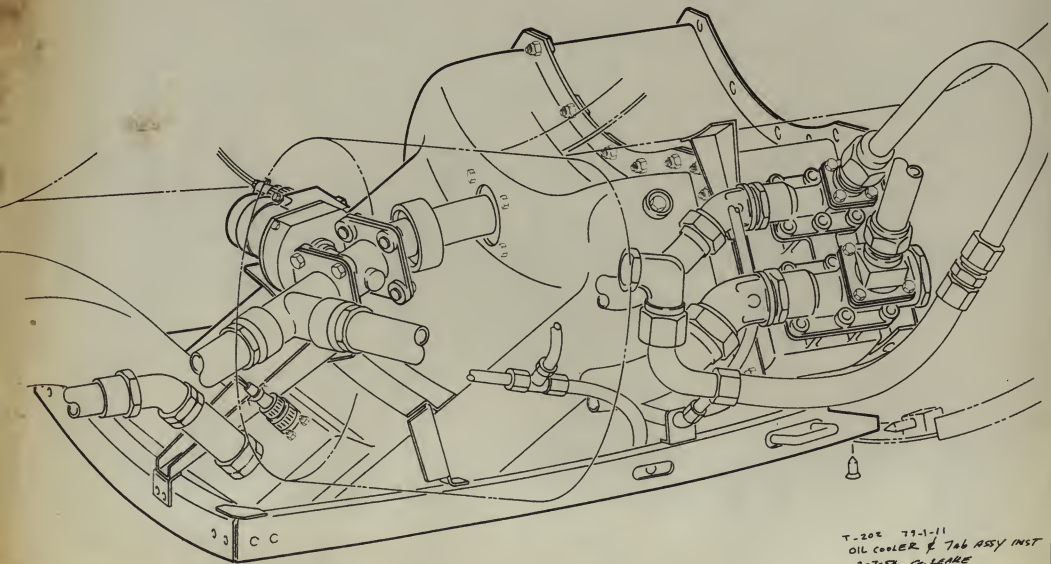
CABLE TRAVEL			
CABLE	NO LOAD TOTAL	NO LOAD FWD THRUST	NO LOAD REV THRUST
THRUST LEVER	7.39	4.22	3.17
START	2.27	—	—

RIGGING LOAD = 40 ± 5 LB. AT 70°F

RIGGING POSITION
THRUST LEVER IDLE
START LEVER CUTOFF



REF: DWG 50-8709



T-20E 77-1-11
OIL COOLER & TAP ASSY INST
2-7-58 G. LEARE

707 NOT AFFECTED FD.

707 REVIEW RECORD

NUT PROCESS 8-97

KC-135		516-10-37
MODEL		DWG. REC. CLK
R. MATTESON	1/8/57	R.R. 120157
DRAFTED		RELEASE
		DATE 5-16-60
CHECKED D. DARTON	1/8/57	S.P. GROUP
		20HR
STRESS	1/8/57	ENGR
		REQUESTED
APPROVED		
APPROVED	1/8/57	PROD. INFO.

BOEING AIRPLANE COMPANY	
ADVANCE DRAWING CHANGE NOTICE	
THE DWG WILL BE CHANGED TO INCLUDE THIS ACTION	
<input type="checkbox"/> DEVIATION	<input checked="" type="checkbox"/> VARIATION
REASON: COMPLETION OF BASIC DESIGN.	

D	INJECTOR VALVE INSTALLATION ON DWG. TITLE COOLER		
ISSUE NO.	ADCN	DRAWING NO.	SHT.
PRR 9500	2-1	50-6381	-
CHG. NO.			
SEC. NO. 76			
55-2121 \$ ON KC135			
CHG. EFF.			

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
NEW	✓	1	5140-534-001-10	O'RING (BAC-410U-10)	C8					
NEW	✓	1	AN814-10DL	PLUG	C8					
NEW	✓	1	66-2429	CAP	B7					
NEW	✓	4	AN3-5A	BOLT	B7					
15	✓	✓	4	AN363-4032	NUT SELF LOCKING	C8				
25	✓	✓	1	5140-97-17	GASKET O'RING	B7				
26	✓	✓	1	5140-97-17	GASKET O'RING	B7				
NEW	✓	✓	4	H10-1032	NUT-HEX LIGHT WT.	C8				
NEW	✓	✓	4	H10-428	NUT-HEX LIGHT WT.	C8				
16	✓	✓	4	AN363-428	NUT SELF LOCKING	A7				
NEW	✓	✓	4	AN4-20A	BOLT	A7				
13	✓	✓	4	AN4-21A	BOLT	A7				
13	✓	✓	4	AN4-21A	BOLT	A7				

PARKER APPLIANCE CO. CLEVELAND OHIO OR EQUIV.

21567
2/12/57
APPROVED BY [Signature]
CHECKED BY [Signature]
P.O. RELEASED BY [Signature]
[Signature] 707

CANCELS ADCN 4 & 5

(ADCN 5 ROHR NOT RELEASED)

REVISE PARTS LIST AS SHOWN ABOVE.

REASON: TO CORRECT PARTS LIST, ELIMINATE INTERFERENCE WITH BY-PASS, COMPLETE BASIC DESIGN. (ENGR. ERROR)

* THIS CHG INCOMPLETE WITHOUT ADCN R-2 ON 50-6381

THE KAYNAR COMPANY, 820 EAST 16TH ST. LOS ANGELES 21, CALIF. (OR EQUIV).

COMPLETED INSTL SATISFACTORY. PLANNING IN ACCORD. O. P. ITEM. ADCN REF. ONLY.


AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG. SHEET NO.
----------------	----------------	------------------	-------	-------------------------	-------------	--------------------	----------------

R-22

R-22

R-22

8-80 1T

MODEL 707		217-10-57 DWG REC CLK 0217-11-57		<div style="text-align: center;">  <p>BOEING AIRPLANE COMPANY</p> <h2 style="margin: 0;">ADVANCE DRAWING CHANGE NOTICE</h2> <p style="font-size: small;">THE DWG WILL BE CHANGED TO INCLUDE THIS ACTION</p> <p> <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION </p> <p>REASON: TO BRING DRAWING UP TO DATE</p> </div>				A		DUCT INSTL TAIL CAC SYSTEMS OUTBOARD															
DRAFTED EARL RILEY		RELEASE 7-11-57CB						ISSUE NO		DWG. TITLE		ADCN		DRAWING NO		SHT									
CHECKED <i>[Signature]</i> 7/11/57		B/P GROUP						PRR 10747		3		50-8252		1											
APPROVED <i>[Signature]</i>		AIR COND. REQUESTED						SEC. NO. 74																	
APPROVED <i>[Signature]</i> 7-27		PROD. INFO.		1-199		301-1999																			
PARTS LIST ZONE		REPLACES		-1		20.2		REQD		PART NUMBER		NOMENCLATURE		ZONE CODE		STOCK SIZE (APPROX. NET)		MATERIAL		HEAT TREAT		FINISH		P	
A3		65-2016-7		✓		✓		1		65-2016-7		DUCT-ASSY OF		C6											
		65-2016-12		✓		✓		1		65-2016-12		DUCT-ASSY OF		C6											

CHANGE P/L AS SHOWN ABOVE

IN ZONE A-6 & C-6 CHANGE PICTURE CALL OUT FROM 65-2016-7 TO 65-2016-12 IN BOTH VIEWS

WORK PRESS. PSI	NUMBER	REQD	NUT	SLEEVE	REQD	ZONE	SHT	TUBE OD	WALL THICK	MATERIAL	HEAT TREAT	FINISH	TUBING IDENTIFICATION	TYPE ENDS	MIN STOCK LGTH
	TUBE ASSY		END FITTINGS PER TUBE ASSY			ZONE CODE									

DISCUSSION

The reported structural defects are most concentrated in areas subject to high jet engine noise levels and jet buffeting, which are the lower surface and trailing edge of the wing. The inboard and outboard ailerons are located in line with the engines, and their control tabs are the most troublesome structural components. This is further substantiated by analyses of AFM 66-1 malfunction and man-hour expenditure rates per square foot of projected structure surface (references c and f). These analyses were based on data from the whole KC-135 fleet.

A previous summary and analysis of the reported structural defects on the 707-100 series airplanes (reference d) shows a marked contrast with the above observation in that no particular areas of malfunction concentration can be discerned. Very few reports of structural defects in areas of high jet engine noise levels were received on the 707, except for honeycomb delamination which will be discussed separately. However, it is felt that malfunctions similar to those reported on the KC-135 are occurring in these areas, but to an extent reduced by the less severe sonic environment on the 707 as follows:

1. Engine noise is attenuated by sound suppressors. This lowers the sound pressure levels on the control surfaces by at least 6 db in the lower frequency ranges that are the most damaging to structure.
2. Take-off and initial climb are usually made at lower EPR settings, and water injection is not so frequently used.
3. Engine running time on the ground is less than on the KC-135 because of differences in procedures. KC-135s are subject to considerable dry and wet trimming and high powered ground engine running during practice alerts.

In addition, many of the malfunctions experienced on the 707 have probably been attributed to normal wear and tear and are not reported after the warranty runs out. It is noteworthy that nearly all of the structural malfunctions on the KC-135 are of a nuisance type which are principally repaired during postflight and periodic inspections. Similarly such minor malfunctions on the 707 are not usually corrected on the flight line, and since they do not usually affect flight scheduling or flight safety are not brought to the attention of the Field Service Engineers and we do not hear of them.

Service experience of about 330,000 fleet hours on the KC-135 has shown that its basic structure, apart from the main landing gear support structure, has been relatively free from major trouble. Initial problems, such as the cracking of splice plates, aft body skin and tailcone, led to design changes or modifications early in the program, and were eliminated before serious hazard or maintenance man-hour expenditure developed. Minor nuisance malfunctions, which account for a good deal of the total maintenance man-hour expenditure, have been generally attributed to engine vibration, noise, and jet buffeting. The latter may be the most important contributor to structural malfunction in the jet wake as high speed films taken during the sonic fatigue test showed heavy racking and buffeting of the inboard ailerons. A decline in the reported honeycomb malfunctions which has been evident for some time is considered to be due to the introduction of nonperforated honeycomb.

Analysis of the 707 service experience (reference d) indicated a marked similarity in honeycomb malfunctions. Honeycomb sandwich construction, particularly the nonperforated type, has demonstrated good sonic fatigue resistance on the 707, on which some control surfaces are known to have exceeded 5,000 hours without malfunction. This is because of its good characteristics for dissipation of sonic energy and resistance to vibration, since it gives a structure with higher natural frequencies than conventional structure (reference h). It is therefore less susceptible to damage in the frequency range of the 150 to 600 cps duo-octave band, in which jet engines have a definite tendency to concentrate more power (reference g).

It should be noted that the effect of various modifications on the malfunction frequency is not separately reflected in the table and figures presented. They deal with the overall malfunctions reported since first delivery.

Prepared by G. P. Kersten *Wick*
G. P. Kersten

Approved by W. Bruce Dalrymple
W. Bruce Dalrymple

GPK:ah

cc: E. A. Anderson	L. T. Goodmanson	D. Nicholls
K. G. Bahrenburg	S. T. Harvey	E. C. Pfafman
A. R. Bremer	H. P. Hemke	R. F. Pfafman
J. P. Butler	H. F. Hiatt	L. L. Pierce
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	Lee Howard	

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- (a) Service Analysis-Reliability Unit Coordination Sheet 61-4, dated February 20, 1961, Analysis of KC-135 Aluminum Honeycomb Malfunctions Reported Prior to January 1, 1961
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 - (c) Service Analysis-Reliability Unit Coordination Sheet 60-160, dated November 9, 1960, KC-135 Analysis of AFM 66-1 Data for January through April 1960
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 - (f) Service Analysis-Reliability Unit Coordination Sheet 60-23, dated April 11, 1960, KC-135 Analysis of AFM 66-1 Data from Castle and Offutt Air Force Bases
 - (g) Boeing Document D-17130, Review of Testing and Information on Sonic Fatigue, dated March 7, 1957
 - (h) Kazimi, M. I., Sandwich Cylinder, Part I - State of the Art and Advantages of Sandwich Construction. Aerospace Engineering, Vol. 19, No. 8, August 1960, pp. 32-37
- Attachments:
- I - KC-135 In Service Action Items, October 1960, page 22, Lower Wing Skin Problem. A brochure prepared by the Military Service Unit for presentation to military personnel at SAC bases
 - II - KC-135 In Service Action Items, December 1960, pp. 38 and 39, Aileron Tab Bearings
 - III - KC-135 In Service Action Items, December 1960, pp. 12-13, Leading Edge Skin Problem
 - IV - KC-135 In Service Action Items, October 1960, page 36, Inboard Aileron Tab

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C. Distribution of Malfunctions as Related to Sound Pressure Level

Eight different malfunction types have been assigned symbols for identification as shown in the summary table.* Each primary structural malfunction has been indicated by the assigned symbol at its approximate location on Figures 1, 2 and 3 (page 12 and on) which respectively are diagrams of the KC-135 left wing, left stabilizer and vertical fin.

In a more detailed analysis, which is not included for brevity, the malfunctions on the left and right wing and stabilizers were separately plotted, but no significant difference was detected. About 95% of the surface malfunctions (skin cracks, delaminations and loose skin fasteners) occurred on the lower surface. Malfunctions on both left and right wings and horizontal stabilizers are shown on the left hand components on Figures 1 and 2, and no distinction is made between malfunctions occurring on the upper or lower surface; nor are those occurring on interior parts distinguished in any way.

Figures 4, 5 and 6 (pages 15 and on) show 25 by 25 inch matrices within the outlines of the wing, horizontal stabilizer and vertical fin, respectively, on which the number of malfunctions occurring in each unit area have been shown. Lines of constant sound pressure level, measured on a static KC-135 at full wet power, are shown on an isometric sketch of the KC-135 on Figure 7 (page 18) and have been superimposed on the matrices.

Figure 4 indicates that structural defects on the wing are heavily concentrated in areas behind the engines where control surfaces are subject to high jet engine noise levels and jet gas buffeting; frequency of occurrence increasing with noise intensity toward the trailing edge. Figures 8 and 9 (pp. 19 and 20) show lines of constant sound pressure level at full wet and dry power, respectively, on the wing lower surface and the relative location of the various control surfaces. These figures show that the wing control surfaces experience approximately a 5 db higher sound pressure level than contiguous wing structure at full dry or wet and presumably at all power settings. They also show that aileron tabs are always exposed to the highest sound pressure levels and are by far the most troublesome components of their structure type.

Figures 5 and 6 indicate a fairly constant sound pressure level for a given power setting on all of the empennage and further that structural defects are predominant on the tabs and trailing edges. These components on both empennage and wing are of necessity of light construction, which apparently does not give sufficient resistance to fatigue.

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Figures 5 and 6 indicate a fairly constant sound pressure level for a given power setting on all of the empennage and further that structural defects are predominant on the tabs and trailing edges. These components on both empennage and wing are of necessity of light construction, which apparently does not give sufficient resistance to fatigue.

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Coordination Sheet: 61-5

Date: March 14, 1961

Model: KC-135

To: A. C. Larsen
J. A. Wallen

cc: See Page Nine

Subject: KC-135 Structural Malfunctions and Their Relation to
Engine Noise, Vibration and Jet Buffet.

References: See Page Ten

SUMMARY

During nearly four years and 330,000 hours flown by 430 KC-135 aircraft, major structural malfunctions (neglecting the landing gear and its support structure) have been few. They were:

1. Cracking of lower wing to center section splice plates occasioned by rework and fit up stresses from distortion during heat treatment. The change from four to nine splice plates has so far been entirely effective.
2. Cracking of the aft body skin found during the structure endurance test at full wet power, which was overcome by installing two inch wide external circumferential tear stopping and stabilizing bands.
3. Cracking of the forward boost pump support forging has been attributed to stress corrosion caused by residual stresses in the forging, and water acting on machined areas of the forging where the top coating was inadequate. All cracks have occurred at the forward pump position where more water tends to collect. No cracks have occurred on airplane 362 or later, on which the support forging has been given a sealant top coat.
4. Two cases of fatigue cracking of the lower wing skin inboard of number three nacelle which are still under investigation.

The remaining structural malfunctions, while they have been many and man-hour consuming, have been principally of a nuisance type. They were:

1. Honeycomb delaminations caused principally by water freezing inside perforated core honeycomb, and which have been very much reduced by the introduction of nonperforated honeycomb.
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ENGINEERING SERVICE ANALYSIS RELIABILITY UNIT

Coordination Sheet: 61-5

Date: March 14, 1961

Model: KC-135

To: A. C. Larsen
J. A. Wallen

cc: See Page Nine

Subject: KC-135 Structural Malfunctions and Their Relation to
Engine Noise, Vibration and Jet Buffet.

References: See Page Ten

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NOTES:

SUPERIMPOSED CURVES ARE SOUND PRESSURE LEVEL CONTOURS
AT FULL WET POWER ON THE KC-135 LOWER WING SURFACE

12

NUMBER OF PRIMARY STRUCTURAL MALFUNCTIONS
UNIT AREA = 25 BY 25 INCHES

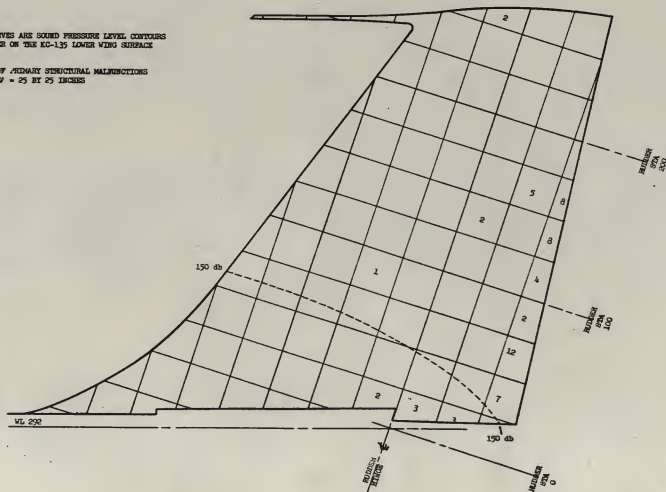


FIGURE 6 - DISPOSITION OF PRIMARY MALFUNCTIONS IN RELATION TO SOUND PRESSURE LEVELS
ON KC-135 FIN AND RUDDER

NOTE:

SUPERIMPOSED CURVES ARE SOUND PRESSURE LEVEL CONTOURS
AT FULL WET POWER ON THE KC-135 LOWER WING SURFACE

12

NUMBER OF PRIMARY STRUCTURAL MALFUNCTIONS
UNIT AREA = 25 BY 25 INCHES

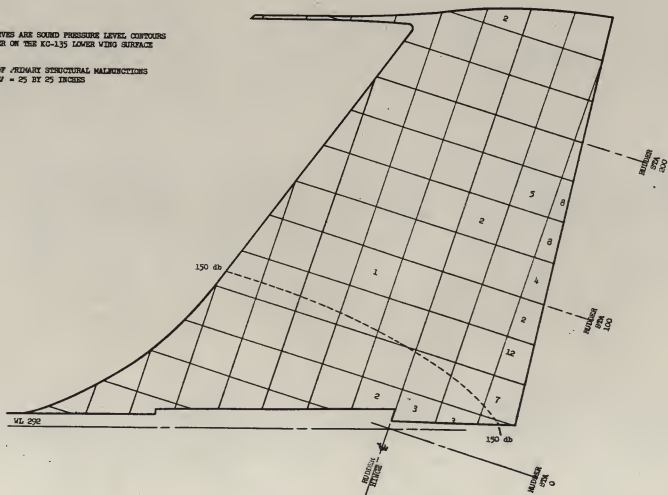


FIGURE 6 - DISPOSITION OF PRIMARY MALFUNCTIONS IN RELATION TO SOUND PRESSURE LEVELS
ON KC-135 FIN AND RUBBER

SUPERIMPOSED CURVES ARE SOUND PRESSURE LEVEL CONTOURS
AT FULL WET POWER ON THE KC-135 LOWER WING SURFACE.

NUMBER OF PRIMARY STRUCTURAL MALFUNCTIONS
UNIT AREA = 25 BY 25 INCHES

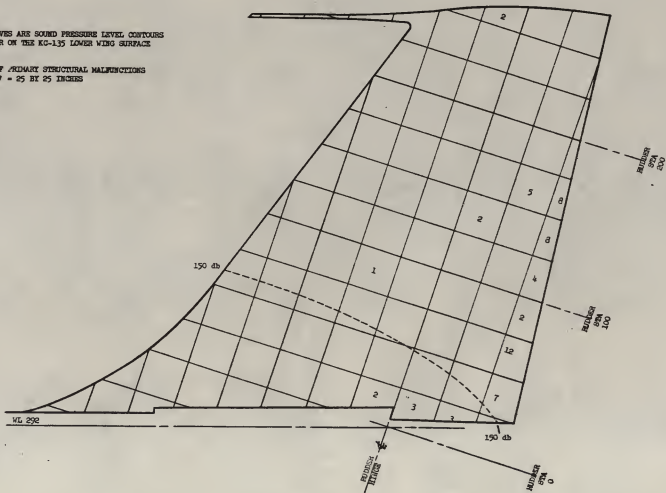


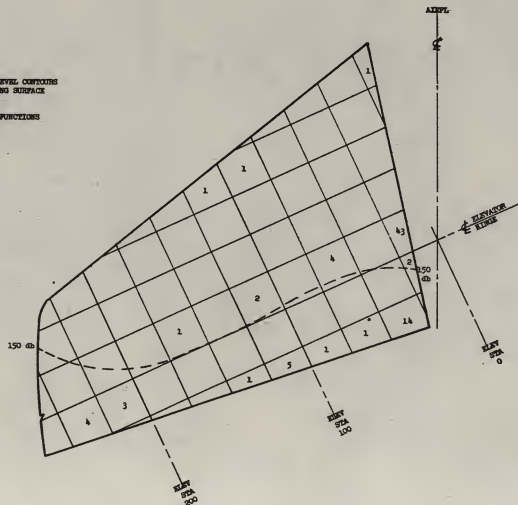
FIGURE 6 - DISPOSITION OF PRIMARY MALFUNCTIONS IN RELATION TO SOUND PRESSURE LEVELS
ON KC-135 FIN AND RUDDER

NOTE:

SUPERIMPOSED CURVES ARE SOUND PRESSURE LEVEL CONTOURS
AT FULL WFT POWER ON THE KC-135 LOWER WING SURFACE

1a

NUMBER OF PRIMARY STRUCTURAL MALFUNCTIONS
UNIT AREA = 25 BY 25 INCHES



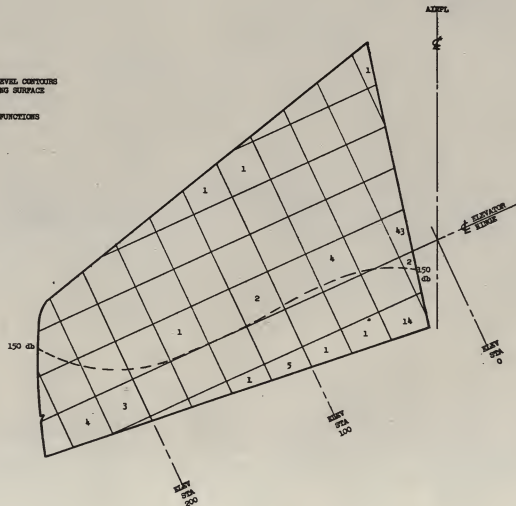
**FIGURE 5 - DISPOSITION OF PRIMARY MALFUNCTIONS IN RELATION TO SOUND PRESSURE LEVELS
ON KC-135 L & R HORIZONTAL STABILIZER AND ELEVATOR**

NOTE:

SUPERIMPOSED CURVES ARE SOUND PRESSURE LEVEL CONTOURS
AT FULL WET POWER ON THE KC-135 LOWER WING SURFACE

14

NUMBER OF PRIMARY STRUCTURAL MALFUNCTIONS
UNIT AREA = 25 BY 25 INCHES



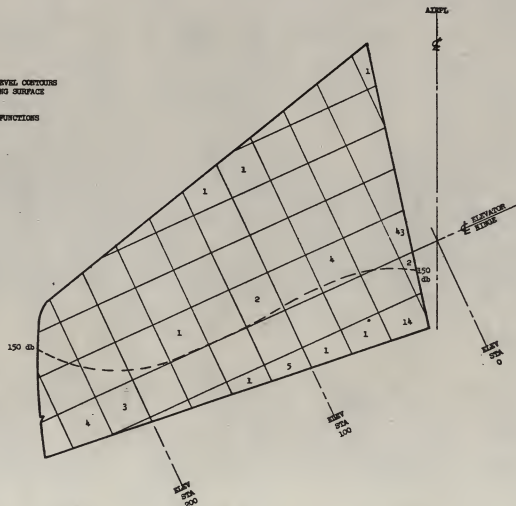
**FIGURE 5 - DISPOSITION OF PRIMARY MALFUNCTIONS IN RELATION TO SOUND PRESSURE LEVELS
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FIG. 1:

SUPERIMPOSED CURVES ARE SOUND PRESSURE LEVEL CONTOURS
AT FULL WFT POWER ON THE KC-135 LOWER VING SURFACE

1a

MAPPER OF PRIMARY STRUCTURAL MALFUNCTIONS
UNIT AREA = 25 BY 25 INCHES



**FIGURE 5 - DISPOSITION OF PRIMARY MALFUNCTIONS IN RELATION TO SOUND PRESSURE LEVELS
ON KC-135 L & R HORIZONTAL STABILIZER AND ELEVATOR**

NOTE:

SUPERIMPOSED CURVES ARE SOUND PRESSURE LEVEL CONTOURS
AT FULL WET POWER ON THE KC-135 LOWER WING SURFACE

1a

NUMBER OF PRIMARY STRUCTURAL MALFUNCTIONS
UNIT AREA = 25 BY 25 INCHES

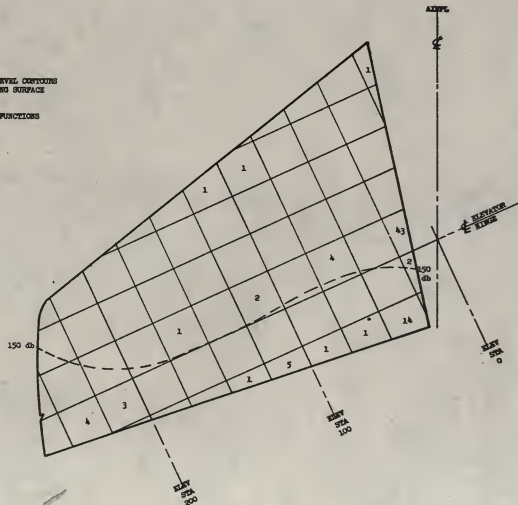


FIGURE 5 - DISPOSITION OF PRIMARY MALFUNCTIONS IN RELATION TO SOUND PRESSURE LEVELS
ON KC-135 L & R HORIZONTAL STABILIZER AND ELEVATOR

SUPERIMPOSED CURVES ARE SOUND PRESSURE LEVEL CONTOURS
AT FULL WET POWER ON THE KC-135 LOWER WING SURFACE

NUMBER OF PRIMARY STRUCTURAL MALFUNCTIONS
UNIT AREA = 25 BY 25 INCHES

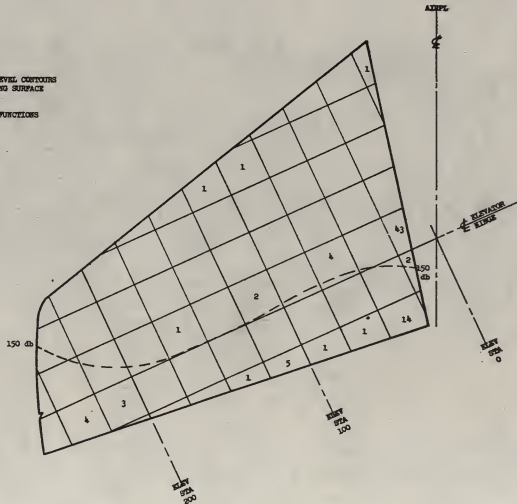


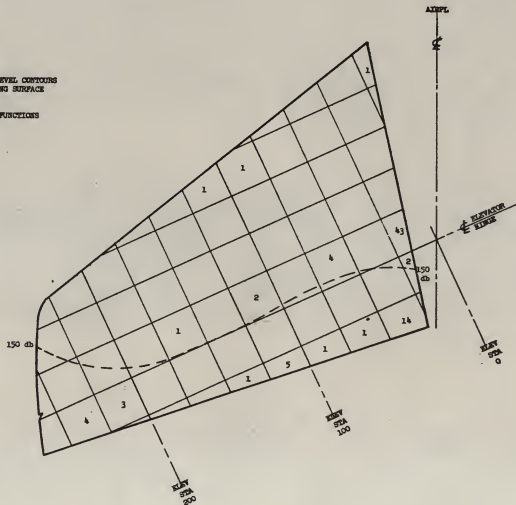
FIGURE 5 - DISPOSITION OF PRIMARY MALFUNCTIONS IN RELATION TO SOUND PRESSURE LEVELS ON KC-135 L & R HORIZONTAL STABILIZER AND ELEVATOR

NOTE:

SUPERIMPOSED CURVES ARE SOUND PRESSURE LEVEL CONTOURS
AT FULL WET POWER ON THE KC-135 LOWER WING SURFACE

1a

NUMBER OF PRIMARY STRUCTURAL MALFUNCTIONS
UNIT AREA = 25 BY 25 INCHES



**FIGURE 5 - DISPOSITION OF PRIMARY MALFUNCTIONS IN RELATION TO SOUND PRESSURE LEVELS
ON KC-135 L & R HORIZONTAL STABILIZER AND ELEVATOR**

NOTE:

SUPERIMPOSED CURVES ARE SOUND PRESSURE LEVEL CONTOURS
AT FULL WET POWER ON THE KC-135 LOWER WING SURFACE

14

NUMBER OF PRIMARY STRUCTURAL MALFUNCTIONS
UNIT AREA = 25 BY 25 INCHES

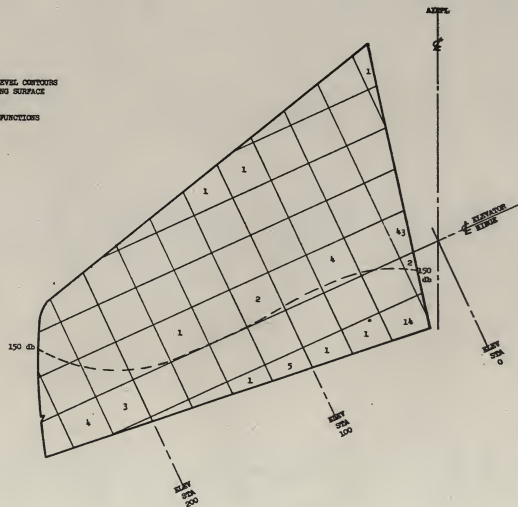


FIGURE 5 - DISPOSITION OF PRIMARY MALFUNCTIONS IN RELATION TO SOUND PRESSURE LEVELS
ON KC-135 L & R HORIZONTAL STABILIZER AND ELEVATOR

NOTE:

SUPERIMPOSED CURVES ARE SOUND PRESSURE LEVEL CONTOURS
AT FULL WET POWER ON THE KC-135 LOWER WING SURFACE

62

NUMBER OF PRIMARY STRUCTURAL MALFUNCTIONS
UNIT AREA = 25 BY 25 INCHES

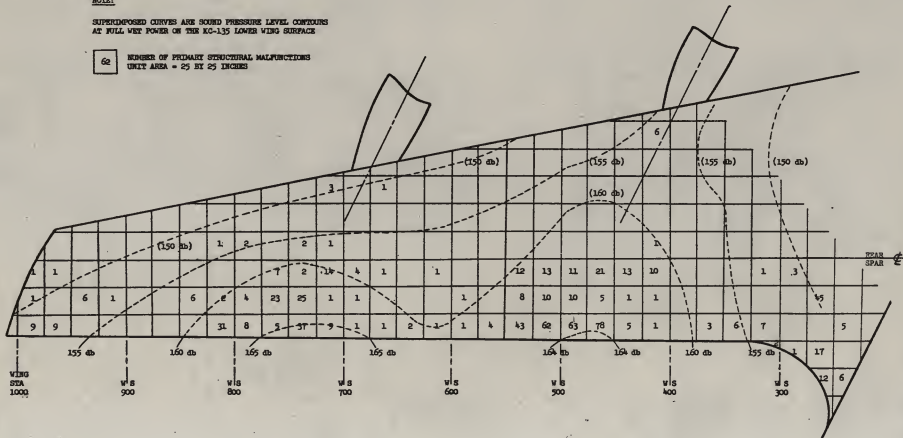


FIGURE 4 - DISPOSITION OF PRIMARY MALFUNCTIONS IN RELATION TO SOUND PRESSURE LEVELS
ON KC-135 L & R WING AND CONTROL SURFACES

NOTE:

SUPERIMPOSED CURVES ARE SOUND PRESSURE LEVEL CONTOURS
AT FULL WET POWER OF THE KC-135 LOWER WING SURFACE

62

NUMBER OF PRIMARY STRUCTURAL MALFUNCTIONS
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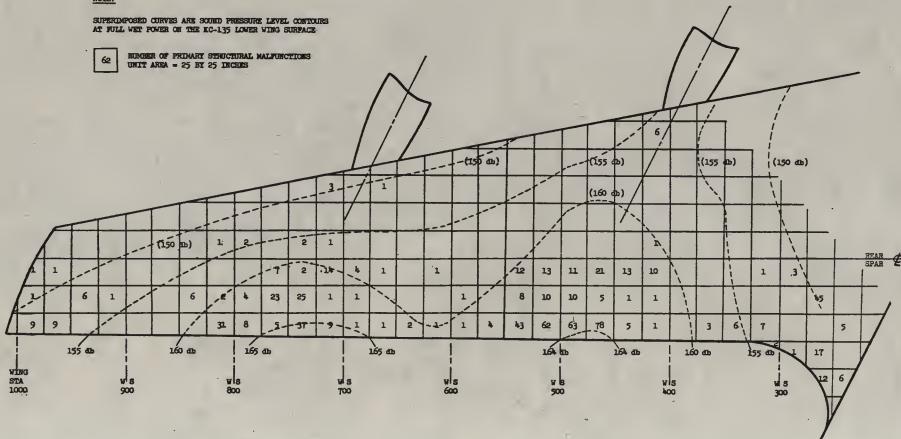


FIGURE 4 - DISPOSITION OF PRIMARY MALFUNCTIONS IN RELATION TO SOUND PRESSURE LEVELS
ON KC-135 L & R WING AND CONTROL SURFACES

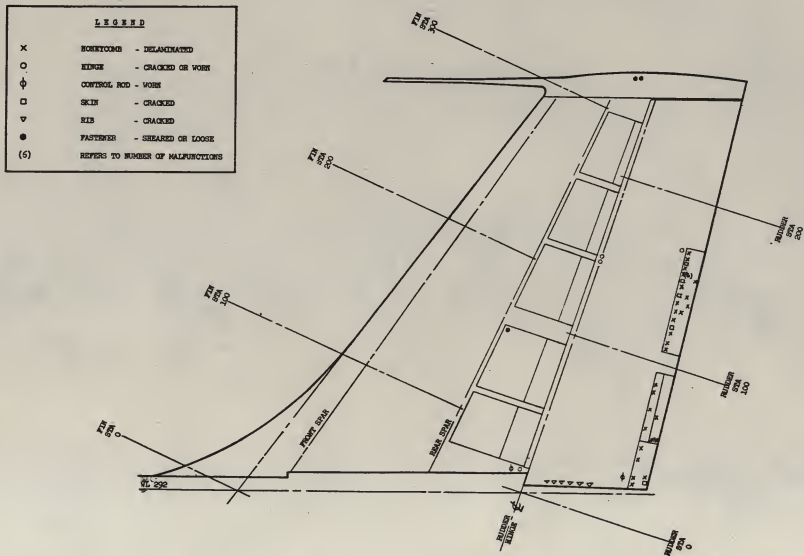


FIGURE 3 - PRIMARY MALFUNCTIONS OF KC-135 FIN AND RUDDER STRUCTURE

LEGEND	
X	BULKHEADS - DELAMINATED
○	RIBS - CRACKED OR WORN
φ	CONTROL ROD - WORN
□	SKIN - CRACKED
▽	RIB - CRACKED
●	FASTENER - SHEARED OR LOOSE
(6)	REFERS TO NUMBER OF MALFUNCTIONS

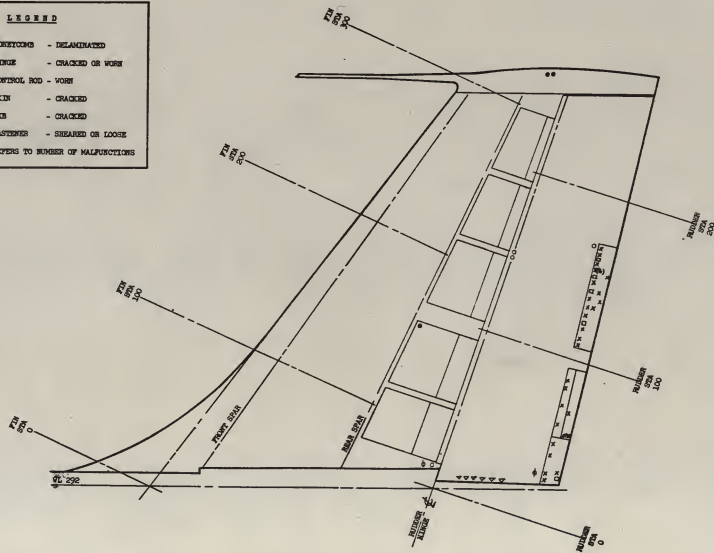


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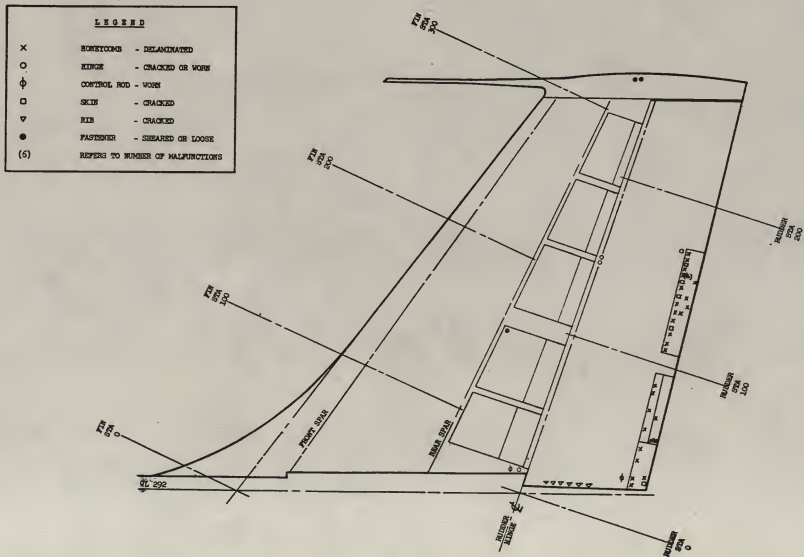


FIGURE 3 - PRIMARY MALFUNCTIONS OF KC-135 FIN AND RUDDER STRUCTURE

3. Control push rod bearing wear, loose rivets and bending have caused considerable trouble. The only remedial action has been to increase the rivet size.
4. Cracking of skin, ribs and stiffeners has occurred predominantly in the wing trailing edge and balance bays. About 300 skin cracks reported in the wing leading edge of 50 airplanes were attributed to overdriven rivets.
5. Cracking of component mounting brackets and clamps has been widespread and is considered to be primarily due to engine vibration transmitted by the structure.
6. Loosening of nuts, bolts and screws has been one of the most frequently occurring malfunctions on the KC-135.

CONCLUSIONS

Nuisance structural malfunctions have shown a heavy predominance in control surfaces and their supports which are subject to high sound pressure levels and jet buffet (see Figure 4). Reported structural malfunctions on the 707 are generally less frequent than on the KC-135 and show more dispersion. This is attributed to the relatively greater influence of normal wear and tear in the less severe sonic environment of the 707.

RECOMMENDATIONS

It is recommended that in future designs the major problem of jet buffet and sonic damage should be avoided by mounting the engines so that the jet efflux and the highest SPL's are behind most of the airplane and particularly aft of the control surfaces. The 727 engine mounting seems to approach the ideal in this respect. If other considerations prohibit this, it is recommended that:

1. Detail design of control surfaces and aft fuselage take account of exposure to jet blast and engine noise. Nonperforated honeycomb has given satisfactory service on the 707 and is considered to have good sonic fatigue resistance.
2. Designs of control surface structure be evaluated for sonic fatigue resistance by full scale tests.
3. Research into the mechanism of sonic fatigue be intensified.
4. Laminated construction with viscoelastic inner layer be evaluated for its sonic energy dissipation and resistance to vibration damage.
5. Methods of preventing engine vibration from passing into the airplane structure should be investigated.
6. The design of component mounting brackets and clamps in jet aircraft be further studied for improved vibrational load resistance.
7. The adequacy of nut and bolt locking and tube coupling locking in jet aircraft be improved.

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Nuisance structural malfunctions have shown a heavy predominance in control surfaces and their supports which are subject to high sound pressure levels and jet buffet (see Figure 4). Reported structural malfunctions on the 707 are generally less frequent than on the KC-135 and show more dispersion. This is attributed to the relatively greater influence of normal wear and tear in the less severe sonic environment of the 707.

RECOMMENDATIONS

It is recommended that in future designs the major problem of jet buffet and sonic damage should be avoided by mounting the engines so that the jet efflux and the highest SPL's are behind most of the airplane and particularly aft of the control surfaces. The 727 engine mounting seems to approach the ideal in this respect. If other considerations prohibit this, it is recommended that:

1. Detail design of control surfaces and aft fuselage take account of exposure to jet blast and engine noise. Nonperforated honeycomb has given satisfactory service on the 707 and is considered to have good sonic fatigue resistance.
2. Designs of control surface structure be evaluated for sonic fatigue resistance by full scale tests.
3. Research into the mechanism of sonic fatigue be intensified.
4. Laminated construction with viscoelastic inner layer be evaluated for its sonic energy dissipation and resistance to vibration damage.
5. Methods of preventing engine vibration from passing into the airplane structure should be investigated.
6. The design of component mounting brackets and clamps in jet aircraft be further studied for improved vibrational load resistance.
7. The adequacy of nut and bolt locking and tube coupling locking in jet aircraft be improved.

3. Control push rod bearing wear, loose rivets and bending have caused considerable trouble. The only remedial action has been to increase the rivet size.
4. Cracking of skin, ribs and stiffeners has occurred predominantly in the wing trailing edge and balance bays. About 300 skin cracks reported in the wing leading edge of 50 airplanes were attributed to overdriven rivets.
5. Cracking of component mounting brackets and clamps has been widespread and is considered to be primarily due to engine vibration transmitted by the structure.
6. Loosening of nuts, bolts and screws has been one of the most frequently occurring malfunctions on the KC-135.

CONCLUSIONS

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ANALYSIS

Basic airframe and flight controls malfunctions of a structural or a mechanical nature can be classified as:

1. Primary structural malfunctions, which are considered within the responsibility of the manufacturer and may be of a design, quality control or manufacturing nature.
2. Secondary structural malfunctions, which are those that occurred as a result of related component failure, installation or maintenance error, or foreign object damage.

This analysis covers the primary structural malfunctions reported on the KC-135 wing, rear fuselage and empennage prior to January 1, 1961, which involves about 330,000 flight hours. Secondary malfunctions and malfunctions of the forward and center fuselage, and the landing gear and its support structure are not included. The landing gear malfunctions are adequately covered by reference (b) and such structural malfunctions as occur in the center and forward fuselage appear to be of a random nature and not primarily related to sonic damage.

A. Major Structural Malfunctions

These malfunctions either compromised safety of flight or required extensive maintenance. The first three are not considered to be related to sonic damage.

1. Lower Wing to Center Section Splice Plate Cracking

The splice at BBL 70.5 was originally a four plate configuration. Distortion during processing made it almost impossible to obtain the desired contour in these long, relatively thin, high heat treat steel plates. In consequence, rework and fit up stresses sometimes caused cracking at the bend radius. Sixteen cracked splice plates of this configuration have been reported, the last in September 1960. A change to eight or nine smaller plates (PRR 4357-5) alleviated manufacturing and assembly difficulties and was effective in airplane 134 and on. No failures have been reported in the modified splice plates, but TO. 1C-135(K)A-6 still calls for inspection at hourly postflight.

2. Lower Wing Skin Cracking

Two almost identical cracks have been reported in the lower wing skin, one in AF 58-040 at 655 flight hours (June 1960) and one in AF 57-1450 at 1159 flight hours (February 1961). The cracks were about thirteen inches long in a chordwise direction at approximately Wing Station 392, just inboard of the number three nacelle. Cyclic loading caused the crack in AF 58-040, which is shown on Attachment I. It started at a rivet hole and progressed fore and aft stopping at rivets through the front spar, and stringer 15 respectively. First indications are that these were fatigue cracks caused by a stress concentration at the end rivet attaching the skin to the inboard dry bay doubler. A fleet wide inspection to examine affected rivet holes by means of a borescope or other method is under consideration.

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3. Cracking of the Forward Boost Pump Support Forging

Thirty-three cases have been reported which account for four per cent of the Category 3 fuel tank leaks. These cracks have been attributed to stress corrosion caused by residual stresses in the forging, and water acting on machined areas of the forging where the top coating was inadequate. All cracks have occurred at the forward pump position where more water tends to collect. No cracks have occurred on airplane 362 or later, on which the support forging has been given a sealant top coat. On airplane 364 and on, forging surfaces are also shot peened.

4. Aft Body Skin Cracking

The five hour sonic fatigue test at full wet power showed the susceptibility of the aft body skin to noise damage and skin cracks in the aft body were experienced early in service. To improve the resistance to sonic fatigue, two inch wide circumferential straps were installed on the outside aft body between Station 1150 and 1370 (T.O. 778). These straps, which act as tear stoppers and stabilizers, provide fail-safe structure and have eliminated this type of skin cracking.

5. Tailcone Cracking

Extensive cracking of the tailcone magnesium skin was experienced early in the KC-135 program. Redesigned tailcones of fiberglass construction were installed on airplanes 216 and on by PRR 4372-1, and further modification of the tail light bracket and its supporting skin was later necessary because of cracking (PRR 4671-1). Limited information from Field Service and AFM 66-1 reporting indicate that the introduction of fiberglass cones, and repair of old configuration metal cones in accordance with PRR 4372 instructions, have virtually eliminated the basic problem

B. Nuisance Malfunctions

These malfunctions are not considered individually, but are analyzed in terms of their type, frequency of occurrence and location. The reported structural malfunctions are summarized by component and type in the table given on page 11. It is emphasized that these represent reported malfunctions only; what proportion they constitute of malfunctions which have actually occurred is not known. The malfunctions of left and right components have not been separated for this summary as no difference in frequency of occurrence could be discerned. Malfunctions fall into six types as follows:

1. Honeycomb Delamination

This consists of skin separating from the core at the bend line. It is caused by defective bonding and/or water accumulating and freezing in the cells. It occurs almost entirely in perforated cores and only if skin cracks or defective edge seals are present. A detailed analysis

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of honeycomb malfunctions including delaminations on the KC-135 and 707 is contained in references (a) and (e) respectively. The effect of sonic vibration on honeycomb delamination is evident although the magnitude of its contribution cannot be clearly established.

Honeycomb delaminations represent 14% of the total malfunctions but have shown a steady decline in frequency of occurrence with the progressive introduction of nonperforated honeycomb. A good number of the delaminations were reported as the result of a special inspection (T.O. 703) particularly those on rudder and elevator tabs. Delaminations caused by water accumulating and freezing were virtually eliminated by the introduction of nonperforated cores in the machined edge panels on the trailing edges and tabs. This change was effective in production on airplane 235 and on for most tabs and trailing edges. Perforated honeycomb in these parts on earlier airplanes is being eliminated from the KC-135 fleet through attrition. It should be noted that crushed edge honeycomb panels still have perforated cores. However, crushed edge panels are not as susceptible to delaminations as machined edge panels because of better sealing.

2. Control Surface Hinge Wear and Cracking

The Table, p11 shows that control surface hinges are the most troublesome item of the structure in that they experienced one third of the total structural malfunctions. Malfunctions of control surface hinges consist of excessive bearing wear, loose or sheared hinge and hinge retainer bolts, and loose or cracked fittings. Inboard aileron tab hinge malfunctions, which are characteristic of hinge problems are depicted in Attachment II. Teflon-lined spherical bearings for the three inboard aileron tab hinges and improved bolt torquing have been introduced to alleviate these troubles. These spherical bearings distribute the load over a larger area which makes them superior to the ball or roller bearings in applications where there is constant vibrational pounding and relatively little rotation. The teflon lining also eliminates the necessity for lubrication.

Sonic vibration, aggravated by jet exhaust buffet, seems to be the underlying cause of these malfunctions and also of worn piano hinge lobes and pin retainers which allow the hinge pin to slide out and pierce the adjoining honeycomb panels. Outboard aileron hinge pin retention was completely revised by PRR 4724 and the aluminum hinge pin retainers on the other tabs were changed to steel.

3. Control Push Rod Wear and Bending

Worn bearings, loose rivets and loose or bent rod ends are the more recurrent problems on control rods and account for 12% of the total reported malfunctions. Actual seizure of eye end bearings and one case of complete rod fracture have been reported.

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The two rivets attaching each rod end to the tube have had a long history of becoming loose and two cases of tube cracking around these rivets have been reported. PRR 4659 increased the diameter of these rivets from 5/32 to 3/16 and is effective on airplane 280 and on. Adjustable rod ends have bent at the thread run out which indicates that a weakness exists. Rolled threads and a generous radius at the change in cross section should be considered to assure good fatigue life for this component whose failure may affect flight safety.

4. Cracking of Skin, Ribs and Stiffeners

Cracked structural components such as skins, ribs and stiffeners represent about 25% of the 850 structural malfunctions reported. Skin and beam cracks in the wing trailing edge and cracks in the ribs of the balance bays and control surfaces are the most prevalent malfunctions of this type. In addition, approximately three hundred wing leading edge skin cracks have been found on about fifty airplanes during a special inspection of the whole fleet. These cracks mostly about 3/8 inch long emanated from rivet holes in a spanwise direction, and were attributed to overdriving the rivets during production. Once the prestress is relieved, further crack extension is not expected and stop drilling of cracks up to 3/4 inch long is permitted. The problem of leading edge skin cracking is further discussed in Attachment III.

5. Cracking of Brackets and Clamps

The relatively few malfunctions of brackets reported represent about 6% of the total structural malfunctions. They have mainly occurred on a brace that is located just above the aft hinge bracket of the outboard landing gear door assembly. Also, the bracket that extends from the aft rib at WBL 129.62 to support the lower wing trailing edge has frequently cracked. Both these brackets have been redesigned.

It should be noted that according to AFM 66-1 cracking of hydraulic tubing and component clamps and mounting brackets have been widespread. Component attachment brackets in most other systems have been similarly affected though to a lesser extent. The latter are considered to be caused primarily by engine vibrations transmitted by the structure. In the case of the hydraulic systems, pressure fluctuations are major contributors to such failures.

6. Sheared or Loose Fasteners

Sheared or loose fasteners occur very frequently, but are usually only reported by Field Service Engineers if they affect airplane safety or during special surveys. An example of the former is the backing out of the nose retention screws of the inboard aileron tab from their helicoid inserts. This has caused tab jamming, and is attributed to excessive vibration as described in Attachment IV. T.O. 915 calls for the application of resin cement to the threads of the aileron tab nose weight

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4. Cracking of Skin, Ribs and Stiffeners

Cracked structural components such as skins, ribs and stiffeners represent about 25% of the 850 structural malfunctions reported. Skin and beam cracks in the wing trailing edge and cracks in the ribs of the balance bays and control surfaces are the most prevalent malfunctions of this type. In addition, approximately three hundred wing leading edge skin cracks have been found on about fifty airplanes during a special inspection of the whole fleet. These cracks mostly about 3/8 inch long emanated from rivet holes in a spanwise direction, and were attributed to overdriving the rivets during production. Once the prestress is relieved, further crack extension is not expected and stop drilling of cracks up to 3/4 inch long is permitted. The problem of leading edge skin cracking is further discussed in Attachment III.

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FIELD SERVICE REPORT

TO: BOEING AIRPLANE COMPANY

Attn:

Seattle Div.
W. S. Supt. Sect.

Transport Div.
Eng. Serv. Sect.

P. A. Division
Field Service

SUMMARY ☐

Wichita Div.
Eng. Serv. Sect.

SUBJECT:

FAS AIR BOTTLE CONTROL VALVE

UNCLASSIFIED ☐

CLASSIFIED ☐

REFERENCE: Boeing ltr 6-7171-1-12560 dtd 15 June 1960

ROUTING:

ORIGINAL
DRS
GN
WHD
OFFICE BASE FILE

Reference requests relative serviceability of two configurations of the subject.

The writer checked work orders and supply records and talked with the engine shop people who are responsible for this valve. There are no records which reveal the particular part number, vendor, etc. of the valves. Further, the shop supervisor did not care to express an opinion regarding the relative merits of the various valves.

It is regretted that the writer cannot supply the requested information, but neither fact nor educated opinion regarding the subject is available.

CC:
WHR
WLB
EED
WHD
FIELD SERVICE SUBJECT FILE

Dick Geist
KC-135 Representative

DC/dm

FILE NO.

040701

NAME	Dick Geist	REPORT NO.	C-3 AFB 902-697	DATE	27 June 1960
STATION	Clinton-Oberman AFB	LOCATION	Burns Flat, Oklahoma		
SUBJECT	FAS Air Bottle Control Valve			MODEL	KC-135
REFERENCES	As listed	ENCLOSURES	None		

FSR

FSR

FSR

FSR

FSR

FSR

FSR

~~W.D.~~
HH
August 26, 1960
6-7171-1-13217

To: All Field Service Engineers - Investigation
Subject: FAS Air Bottle Control Valve - KC-135
Reference: (a) Letter 6-7171-1-12560, June 15, 1960
(b) Letter 6-7171-1-12840, August 3, 1960

Reference (a) letter requested an investigation of the Part Number 38E13-8A (Bendix) versus the Part Number 840 891 (Kidd) and the Part Number 38E13-3A (Bendix) subject valves. The Part Number 38E-13-8A is installed in production on airplanes 59-1443 and on and is also supplied through spares.

Reference (b) summarized the results of the investigation which was inconclusive.

At the last weapon system phasing meeting, August 11, 1960, BAC was committed to further evaluation of the Part Number 38E13-8A (Bendix) valve. You are therefore requested to monitor the performance of these valves until further notice and report failure data i.e. part number and reason (if known) to this office. The difficulties of obtaining this type of information are fully realized and your efforts in obtaining this type of data will be appreciated.

for
Don Wickman
D. R. Seibel

File: 0106-01
040701

S

cc: W. B. Dalrymple
W. B. Kuse
H. D. Cameron
C. A. Carlson

JCH/frs

June 13, 1960
6-7171-1-12559

HH
LH

To: W. J. Groseclose - Oklahoma City

Subject: FAS Air Bottle Control Valve, KC-135

Reference: T.O. 1C-135(K)A-10, Figure 4-22, item 25

Project has requested the following information on FAS Air Bottle Control Valves, part numbers 38-13-BA (Bendix) Federal Stock Number 2995-766-0065, 38-13-3A (Bendix) Federal Stock Number 4811-1650-512-1530, and 48091 (Kidd) Federal Stock Number 1650-511-5286; returned to depot for overhaul:

- (1) Quantity of each valve returned for overhaul.
- (2) Reason for return of each valve.

After acquiring above information please reply as soon as possible but no later than 27 June 1960.

G. R. Seibel
G. R. Seibel

File 040701

WCS/njh

cc: W. B. Dalrymple
W. H. Kuse
H. D. Cameron

FIELD SERVICE REPORT

TO: BOEING AIRPLANE COMPANY

SUMMARY ☒

Attn: ☐ Seattle Div.
W. S. Supt. Sect.

☒ Transport Div.
Eng. Serv. Sect.

☐ P. A. Division
Field Service

☐ Wichita Div.
Eng. Serv. Sect.

SUBJECT: PAS Air Bottle Control Valve, KC-135

UNCLASSIFIED ☒

CLASSIFIED ☐

Ref: 6-7171-1-12560 dated June 15, 1960

ROUTING: Reference requested information on failures of the subject.

Failures of the subject are not recorded by part number. It could be assumed, however, that almost all of the failures at this activity are of the old type valves. The following is a list of the work orders on the subject for the last six months. It is the only information available.

Note: No comment after the airplane number means that the valve was replaced.

ORIGINAL
1-1
2-1
3-1
4-1
5-1
6-1
7-1
8-1
9-1
10-1
OFFICE BASE FILE

CC:
1-1
2-1
3-1
4-1
5-1
6-1
7-1
8-1
9-1
10-1
FIELD SERVICE SUBJECT FILE

FILE NO.

Date	A/P	Remarks
4 Dec	3658	Tightened relief valve
11 Dec	1483	
20 Dec	1456	
28 Dec	084	
29 Dec	084	Replaced seals
6 Jan	1442	
12 Jan	1459	
15 Jan	1462	
19 Jan	1479	Replaced gage
20 Jan	1464	Adjusted "T" handle
20 Jan	1477	Adjusted "T" handle
22 Jan	1462	Adjusted "T" handle
28 Jan	1479	
2 Feb	1442	Adjusted "T" handle
3 Feb	1485	
4 Feb	1474	Adjusted "T" handle
10 March	1483	Tightened relief valve
15 March	084	
19 March	1483	
22 March	1445	
23 March	1428	Replaced seals and packing
25 March	1453	
13 April	084	Adjusted relief valve
26 April	1418	
28 April	1471	
6 May	3658	
12 May	1471	
20 May	1473	

NAME Robert Brian REPORT NO. AAFB-96-276F DATE 22 June 60
 STATION Altus AFB, LOCATION, Oklahoma
 SUBJECT PAS Air Bottle Control Valve MODEL KC-135
 REFERENCES ENCLOSURES

FSR FSR FSR FSR FSR FSR FSR

SUPPLEMENTARY SHEET

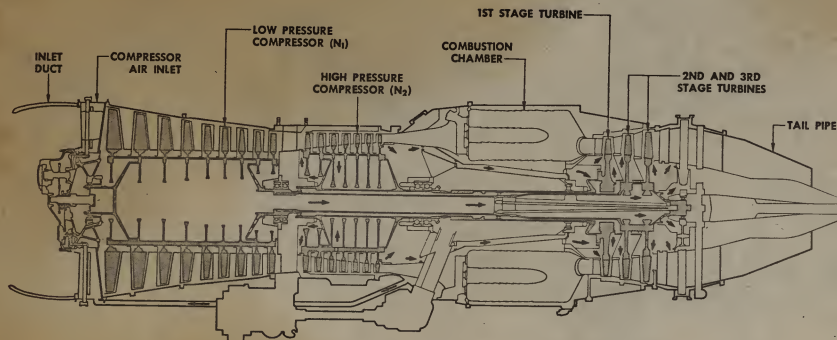
<u>Date</u>	<u>A/P</u>	<u>Remarks</u>
24 May	1463	Tightened B nut
2 June	1471	
12 June	1468	Replaced Gage
13 June	1477	
14 June	1468	

Robert Brian
Robert Brian

MD:am

REPORT AAFE-96-2767
SHT 2 OF 2

FSR FSR FSR FSR FSR FSR FSR



FOR TRAINING PURPOSES ONLY

~~SECRET~~
DIVISION
ING
SECTION
FD ☐ UNCLASSIFIED ☒

SUBJECT: FAS Air Bottle Control Valve

ROUTING:

Information requested by reference letter, follows:

1. There have been 5 of the subject valves replaced and routed through the pneumatic shop since 1 January 1960. Perhaps there have been other valves replaced during TBY operations and maybe several on the line that did not go through the FM shop. All 5 recorded failures were Kidde, P/N 840891.
2. The two most frequent reasons for failure are the relief valve leaks and the gauge is inoperative.
3. There are only two of the Bendix 38E13-8A valves presently in service here and not enough available service experience to compare the relative service merits of the different valve configurations. The -8A valves have been on the aircraft only about two months.

R. S. Needy
R. S. Needy

ORIGINAL
OFFICE BASE FILE
CC:
SERVICE DEPT SUBJECT FILE

File: 040701

NAME R.S. Needy
STATION Ramey AFB
SUBJECT FAS Air Bottle Control Valve
REFERENCES Noted Above

REPORT NO. RAFB-72-98 DATE 22 June 60
LOCATION Puerto Rico MODEL KC-135
ENCLOSURES

FSR FSR FSR FSR FSR FSR FSR

BOEING **707** *Stratoliner*
MAINTENANCE MANUAL

CHAPTER 10

PARKING AND MOORING

TABLE OF CONTENTS

<u>Subject</u>	<u>Subject No.</u>
PARKING	10-1-1

~~WDD~~

TRANSPORT DIVISION
ENGINEERING
SERVICE SECTION

UNCLASSIFIED ☒

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~~HH~~

ORIGINAL	246
	311
	144D
OFFICE BASE FILE	
	CC
	1114
	111
	111
	111
	111
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	111
	111
	111
SERVICE DEPT SUBJECT FILE	

0407

FILE 2-2701
AC 135

LEC/40

FSR FSR FSR FSR FSR FSR FSR

FIELD SERVICE REPORT

TO: BOEING AIRPLANE COMPANY

SUMMARY ☐

Attn:
SUBJECT:

☒ Seattle Div.
W. S. Supt. Sect.

☐ Transport Div.
Eng. Serv. Sect.

☐ P. A. Division
Field Service

☐ Wichita Div.
Eng. Serv. Sect.

FAS Bottle Control Valve

UNCLASSIFIED ☒

CLASSIFIED ☐

ROUTING:

There are no records at this base that have the information correlating subject P/N's and failure data as desired in reference (a).

A survey of the fleet here indicates that 75% of the valves installed now are the Kiddie valve P/N 840891 and 25% are the Bendix 38E 13-8A valve.

Hearsay information indicates that there were several failures last winter mostly on the Bendix valve (believed to be the -3A type). Usual cause for failure was forcing of "T" handle when frozen and resulted in leakage.

Spares that are received for replacements have been mostly Kiddie valves.

ORIGINAL
DM
EW
WHD-Info
OFFICE BASE FILE

CC:
WHD
FIELD SERVICE SUBJECT FILE

Craig E. McCreary
Craig E. McCreary
Field Service Engineer

FILE NO.
040701
CEM:jtm

FILE 040701
040701

NAME	Craig E. McCreary	REPORT NO.	FAFB-92-125F	DATE	22 July 1960
LOCATION	Fairchild AFB	LOCATION	Spokane, Washington		
SUBJECT	FAS Bottle Control Valve			MODEL	KC-135
REFERENCES	(a) 67171-1-12560 dtd 15 June 1960	ENCLOSURES	None		

FSR FSR FSR FSR FSR FSR FSR

FIELD SERVICE REPORT

TO: BOEING AIRFRAME COMPANY

SUMMARY ☐

Attn: ☐ Seattle Div.
W. S. Supt. Sect.

☒ Transport Div.
Eng. Serv. Sect.

☐ P. A. Division
Field Service

☐ Wichita Div.
Eng. Serv. Sect.

SUBJECT: FAS Air Bottle Control Valve

UNCLASSIFIED ☒

CLASSIFIED ☐

Reference: (a) 6-7171-1-12560, dated June 15, 1960
(b) 12863 (TWX), received July 21, 1960

ROUTING:

ORIGINAL
OFFICE BASE FILE

Maintenance personnel have been questioned concerning the reliability of the subject FAS air bottle control valves. The consensus of opinion is that the valves are considered to be not unreliable in service and that the rate of rejections does not cause concern.

Failures recollected mainly centered upon air leakage; only one instance of failure to operate was remembered. The valve types were not recorded.

The following information on valve consumption has been obtained from Base Supply:

840891 Kidde (4890-1650-511-5286)	-	8 issued
38E13-3A Bendix (2995-633-2239)	-	2 issued
38E13-8A Bendix (1650-512-1530)	-	0 issued

Supply records cover the past six month period only.
No record of failure receipts by type could be obtained.

FIELD SERVICE SUBJECT FILE

FILE NO.

0106-01
040701

NAME	Peter F. Sanders	REPORT NO.	SJAFB-911-139F	DATE	21 July 1960
STATION	Seymour Johnson AFB	LOCATION	Goldsboro, North Carolina		
SUBJECT	FAS Air Bottle Control Valve	MODEL	KC-135A		
REFERENCES	Noted	ENCLOSURES	None		

FSR FSR FSR FSR FSR FSR FSR

~~10872~~

TRANSPORT DIVISION
ENGINEERING
SERVICE SECTION

UNCLASSIFIED

HH
LH

It has been impossible to monitor the types and number of subject valve failures according to part number. However, the main failures have been with improperly indicating and/or loose gages and with valves relieving the air bottle down from 3000 psi. The gage has been the most frequent discrepancy. The only information regarding service life is that the new type gage appears to be more reliable.

D.M. Shake

D. M. Shake

040701

REPORT NO. WKAFB-6ARS-90F DATE 6-27-60
LOCATION Roswell, N.M. MODEL KC-135
ENCLOSURES

FSR FSR FSR FSR FSR FSR FSR

FIELD SERVICE REPORT

BOEING AIRPLANE COMPANY

TO: ENGINEERING SERVICE DEPARTMENT

SEATTLE ☒

WICHITA ☐

SUBJECT: FAS Air Bottle Control Valve

CLASSIFIED ☐

UNCLASSIFIED ☒

ROUTING:

Please be referred to your letter 6-7171-1-12560 dated June 15, 1960.

ORIGINAL
DPS
GN
WAND WFO
OFFICE BASE FILE

The subject valves are listed under the following Federal Stock Numbers:

Kidde, Part # 840891, Federal Stock # 1650-511-5286
Bendix, Part # 38E13-3A, Federal Stock # 1650-512-1530
Bendix, Part # 38E13-8A, Federal Stock # 1AFL-1650-633-2239

The following information is based on the above listed Federal Stock Numbers. Since January 1, 1960 the following quantity of the subject valves were issued to maintain the fleet and any transient airplanes (KC-135)

Kidde, Part # 840891	17
Bendix, Part # 38E13-3A	1
Bendix, Part # 38E13-8A	3

CC:
WBA
NDJ
EED
WBO
SERVICE DEPT SUBJECT FILE

The reason for the predominance of the Kidde valves is that most the crew-chiefs will not request and accept either of the Bendix valves as so much difficulties are experienced with them. The majority of the difficulties consist of the valve leaking. To a much lesser degree some trouble is also experienced with the solenoid.

This far the information may make sense, however, as these valves are not repairable at this station they are to be sent to OCAMA for overhaul whenever they fail. In order to determine how many of each of these failed since January 1, 1960 first Air Force personnel and then the writer (as he did not believe it) checked the lists of repairable material sent out of Castle since January 1, 1960. These lists show only two Kidde valves and none of either of the Bendix valves. Even if one assumes that some of the valves withdrawn from supply were taken on TDY airplanes as spares and replaced while the airplane was away from Castle this cannot explain the 19 apparently missing valves. The writer is not able to explain this discrepancy.

FILE 0110701
KC-135

Paul Ribanyi
Paul Ribanyi

NAME	Paul Ribanyi	REPORT NO	CAFR-088-131F	DATE	June 20, 1960
STATION	Castle AFB	LOCATION	Merced, California		
SUBJECT	FAS Air Bottle Control Valve			MODEL	KC-135
REFERENCES	6-7171-1-12560, 6.15.1960	ENCLOSURES	None		

FSR FSR FSR FSR FSR FSR FSR

FIELD SERVICE REPORT

BOEING AIRPLANE COMPANY

TO: ENGINEERING SERVICE DEPARTMENT

SEATTLE ☒

WICHITA ☐

Renton ☒

SUBJECT: *N*

FAS Air Bottle Ground Cart

CLASSIFIED ☐

UNCLASSIFIED ☒

ROUTING:

ORIGINAL
<i>URS</i>
<i>GN</i>
<i>WIP-INFO</i>
OFFICE BASE FILE
CC
<i>CAC</i>
<i>WPA</i>
<i>DOM</i>
<i>GBR</i>
<i>FED</i>
<i>WBO</i>
SERVICE DEPT. SUBJECT FILE

Per ref (b) and (c) the 5 enclosed photos are sent to amplify information in ref (a) and for possible use in BFEW. Note that a relief valve adjusted to relieve at 3125 psi is installed on manifold. This particular valve cracks at 3125 and reseats at 3000. The four 3/8 inch T'S on the manifold were used as two 1/4 inch crosses were not available. The two crosses would simplify the manifold considerably.

Craig E. McCreary
Craig E. McCreary
Field Service Engineer

File: C40701
CEM:jtm

*FILE C40701
KC-135*

*Plotted and Base
for Wing*

NAME	Craig E. McCreary	REPORT NO.	FAB-92-106F	DATE	6-20-60
STATION	Fairchild AFB	LOCATION	Spokane, Washington		
SUBJECT	FAS Air B ttle Ground Cart				
REFERENCES	(a) FAB-92-87E dtd 5/25/60 (b) FAB-92-99F dtd 6/14/60 (c) Memo from D.R.Seibel dtd 6/13/60	ENCLOSURES	five photos of Ground Cart (2 sets)	MODEL	KC-135
					<i>150/20</i>
	FSR	FSR	FSR	FSR	FSR

FIELD SERVICE REPORT

BOEING AIRPLANE COMPANY

TO: ENGINEERING SERVICE DEPARTMENT

SEATTLE ☐WICHITA ☐

Transport Division

SUBJECT: FAS AIR BOTTLE CONTROL VALVE

CLASSIFIED ☐UNCLASSIFIED ☒

ROUTING:

Reference: Memo 6-7171-1-12560 dated 15 June 60

ORIGINAL
1/15
2/15
3/15
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5/15
6/15
7/15
8/15
9/15
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OFFICE BASE FILE
CC
1/15
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9/15
10/15
SERVICE DEPT. SUBJECT FILE

A reliability survey of the subject revealed that 24 valve and gage assemblies have been replaced since January. Fleet hours accumulated during this time period are 3035. Available records do not indicate which valve failed (Kidde 840891 or Bendix 38EL3-3A). Pneudraulic Shop personnel do recall one occasion where 3 of the Bendix valves were installed new and relieved at air pressures of 2500 PSI and lower. Pneudraulic personnel feel that the Kidde valve is more reliable than the Bendix valve. However, the Bendix gage is considered more reliable than the Kidde gage. Typical discrepancies against the valve and gage assembly are:

- (1) Gage sticking, erratic or wrong - 5 cases;
- (2) Valve leak at T-Handle - 10 cases;
- (3) Relieves early - 3 cases;
- (4) Leaks at gage - 1 case.

Undersigned knows of at least two instances where fuel air starter compressors were changed based on readings from improperly operating FAS air bottle gages. It is considered mandatory at this activity to check the bottle gage against MC-1 compressor gage when servicing the bottle from a ground cart.

File No.

0407

Robert G. Tucker
Robert G. Tucker
Field Service Engineer

NAME	Robert G. Tucker/bc	REPORT NO.	GAFB-41-135F	DATE	6-24-60
STATION	Griffies AFB 4039 Strat Wing	LOCATION	Rome, New York		
SUBJECT	FAS Air Bottle Control Valve			MODEL	KC-135
REFERENCES	Noted Above	ENCLOSURES			

FIELD SERVICE REPORT

BOEING AIRPLANE COMPANY

Handwritten: H H
L H

TO: <input type="checkbox"/> SEATTLE DIVISION <input type="checkbox"/> ENGINEERING <input type="checkbox"/> SERVICE SECTION	<input type="checkbox"/> PILOTLESS AIRCRAFT <input type="checkbox"/> DIV. FIELD <input type="checkbox"/> OPERATIONS DEPT.	<input type="checkbox"/> WICHITA DIVISION <input type="checkbox"/> ENGINEERING <input type="checkbox"/> SERVICE SECTION	<input checked="" type="checkbox"/> TRANSPORT DIVISION <input type="checkbox"/> ENGINEERING <input type="checkbox"/> SERVICE SECTION
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SUBJECT: **FAS AIR BOTTLE CONTROL VALVE, KC-135**
INVESTIGATION REPLY

CLASSIFIED ☐ UNCLASSIFIED ☒

ROUTING:

ORIGINAL
OFFICE BASE FILE
CC:
SERVICE DEPT. SUBJECT FILE

Reference (a) letter requested a survey of the service record of the Bendix 38EL3-8A subject valve versus the old types Bendix 38EL3-3A and Kidde 840891. The -8A valve is installed on airplanes 59-1443 and on.

This activity has no 59 airplanes. A spot check of several planes by the undersigned indicates that only the old types are installed. The -8A valve does not appear to be in supply channels as yet, so no comparison as to serviceability is available.

A check of records shows that three valves were changed in the past six months, P/N unknown; one for leakage and two for electrical malfunction (no details available).

The undersigned believes that in addition to the above, several valves have been changed by crew chiefs on the line, no records are kept of these changes and details are difficult to obtain.

In general, the concensus is that the valves do not present a problem and that consumption is reasonable.

Handwritten Signature: J. C. Huebner
 J. C. Huebner

JCH:jjf

040701

FILE

NAME J. Christopher Huebner	REPORT NO. WAFB-4050-101F	DATE 24 Jun 60
STATION Westover AFB	LOCATION Chicopee Falls, Mass.	
SUBJECT FAS Air Bottle Control Valve		MODEL KC-135
REFERENCES Ref. (a) Letter 6-7171-1-12560 dtd 15 Jun 60	ENCLOSURES none	

FSR FSR FSR FSR FSR FSR FSR

SUPPLEMENTARY SHEET

- G. Aircraft on routine training mission.
- H. ✓ Twenty minutes after take-off the number 4 engine fire warning light came on. Engine was throttled back and after approximately two minutes was shutdown. Fire switch was actuated but light remained on. No visible evidence of fire landing was accomplished without incident.
- J. Lead repaired and reinstalled. System checked satisfactorily.

CONTRACTOR'S REPLY

Reference TWX noted that the above unsatisfactory condition had been caused by damage inflicted during removal and installation of cowling and ~~but~~ suggested providing a protective cover for this detector and connecting wire.

The existing fire detector installation provides protective covering for all wiring except approximately one inch at the detector attaching point. However, reasonable care is still required during installation and removal of engine cowling to avoid damage to the fire detector and other installations. Subject UR is the only report to the Contractor of damage to the detector wiring from installation and removal of cowling. Modification to provide added protection is not considered warranted at this time.

The above is considered to complete the Contractor's action on this project.

U.S. AIR FORCE
BOEING SEATTLE WASH

JAN 20 1 21 PM '61

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DMB261

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FM OCAMA REP OFC AFPR BOEING SEATTLE WASH

TO RJESBA/MOAMA BROOKLEY AFB ALA

INFO RJEDSQ/AMC ASC WPAFB OHIO

RJEDSQ/WADD WPAFB OHIO

RJWFNK/OCAMA TINKER AFB OKLA

RJWXR/CINC SAC OFFUTT AFB NEBR

RJWZJM/93BW CASTLE AFB CALIF

RJWZNFOTIG USAF NORTON AFB CALIF

AF GRNC

BT

UNCLAS FROM OCNCSQ-5-1-114-E ACTION FOR MOAMAMONNSA.

INFO FOR AMC ASC/LMSJ, WADD/WWZSK, OCAMA/OCNC, OCNSI & WWDPESC,
SAC/DM4B2 AND OTIG/AFCDI-2, 932/DCM.

UEJ: EUR SSN 932-61-3, SOLAR APU, SEAL FAILURE, KC-135 ACFT.

OUR OFFICE HAS RECEIVED AN INFORMATION COPY OF SUBJECT IM PROBLEM
UNSATISFACTORY REPORT, WHICH WAS SUBMITTED TO YOUR ORGANIZATION
FOR INVESTIGATION AND NECESSARY ACTION IN ACCORDANCE WITH T O
00-35D-54, PAGE 2-5, PARA 2-36, DATED 1 APR 60. IF RESULTS
OF YOUR PRELIMINARY INVESTIGATION INDICATE THAT THE MALFUNCTION
WAS ATTRIBUTED TO, OR ASSOCIATED WITH, AN INSTALLATION PROBLEM,

File
PCH
EMP
ENG

93BW
61-3

REPRODUCTION
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EDITING

70451
(FILE-0416)

RECEIVED
TRANSPORT DIV
ENGINEERING DEPT

JAN 24 4 12 PM '61

HH
SF

PAGE TWO RJWZDMB 46

REQUEST THIS OFFICE BE NOTIFIED IN ORDER TO PROCURE EXHIBIT, IF
REQUIRED, AND TAKE NECESSARY ACTION TO RESOLVE UNSATISFACTORY
CONDITION. OCAMA REPRESENTATIVE OFFICE IS AVAILABLE TO ASSIST IN
ANY PROBLEM AREA ENCOUNTERED

BT

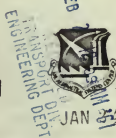
20/2118Z JAN RJWZDMB

NNNNO

74-22

AMC AERONAUTICAL SYSTEMS CENTER
UNITED STATES AIR FORCE
WRIGHT-PATTERSON AIR FORCE BASE, OHIO

FEB 1 10 PM '61



30 29

REPLY TO: LMSJ-1-502/File: RMD 7-2-3

CONTRACT ADM.

SUBJECT: Contract AF33(600)-41979, Model KC-135 Airplane, Engine Tachometer - Generator, Type GEU-7/A, AERNO 61-8732

TO: Boeing Airplane Company
Transport Division
Renton, Washington

For: Boeing Airplane Co.
From: AF Plant Rep.
Action: <input checked="" type="checkbox"/>
Info: <input checked="" type="checkbox"/>
Sent by: <input checked="" type="checkbox"/>
Time: <input checked="" type="checkbox"/>
Supervise: <input type="checkbox"/>
Date: <input type="checkbox"/>

ROUTING

EE DUFF
KG BAHRENBURG
ED MASON
HG HIATT

FROM: Air Force Plant Representative
Boeing Airplane Company
Seattle 24, Washington

KC-135 FILE

DISTRIBUTION

KG BAHRENBURG
- ACTION
HH HOWELL
RM MORGAN
WE MORTLOCK
WE DALRYMPLE

1. Reference is made to the following:

- a. Boeing letter 6-7210-12403 dated 27 October 1960.
- b. LMSJ/ASJ letter LMSJ-9-921 dated 20 September 1960.

2. The reference a. letter recommends that the change from ED-6 to GEU-7/A type tachometer-generator be made effective on an either/or basis on all KC-135's from (30) AF56-3591 and on. This Center concurs in the recommendation and approves the change by miscellaneous EOP to the Model Specification L-15441 as stated in paragraph 3 of the reference a. letter. It should be noted, however, that the AERNO 61-8732, GEU-7/A tachometer-generator is equally suitable for the first 29 KC-135's for spares purposes.

3. The reference b. letter authorized the change to the GEU-7/A tachometer generator effective with the 493rd production KC-135. The letter also stated that the Contractor was authorized to reject any GEU-7/A's manufactured by Globe Industries on the basis that they were never qualified. Since that time Globe has incorporated several minor improvements in their article and has incorporated EOP R-1 which stakes the stator to keep it from rotating. Although the Globe unit is not yet on the Qualified Products List the improvements and modifications are expected to provide an acceptable article. The previous instructions to reject Globe units are therefore rescinded. The Contractor may accept Globe GEU-7/A's for KC-135 installation provided the units have had EOP R-1 accomplished either in production or by retrofit.

Original to:

File

Copies to:

PCH

EMP

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ENG-ACT

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DWO

JBR

4. Globe GEU-7/A tachometer generators which have been modified in accordance with EOP R-1 can be identified by the small hole which was drilled in the case forward of the multi-pin connector for insertion of the ball bearing that stakes the stator. Production units also have marking on the packaging, both individual and external packaging containing several units, indicating that EOP R-1 was incorporated.

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5. It is expected that Boeing will not normally receive Globe units for FY 61 production airplanes. The units delivered will probably be new procurement from one of the three qualified sources. However, it is possible that production quantities may include some Globe units if existing supplies preclude the necessity for new procurement. Some Globe units may also be delivered as spares.

FOR THE COMMANDER:

Edward L. Brady

EDWARD L. BRADY
Lt Colonel USAF
Chief, Project ANDO
Directorate of Strategic Systems

Copies to:

SAC (DIME)

B-52/HC-135 CES, Castle AFB, Calif

MAIA (HANTSE)

OCALA (OCNU)

NNNNZCZCDMA6S1BHA40 26

FEB 1 2 26 PM '61

U.S. AIR FORCE
BOEING FIELD, WASH.

JAN 23 12 30 PM '61

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INFO RJWFNK/OCAMA TINKER AFB

RJWZNF/OTIG NORTON AFB

RJWZDMB/AFPR BOEING SEATTLE WA H

BT

UNCLAS FROM DCMQC 0193.

IMMEDIATE ACTION REQUIRED. SUBJECT:SEMERGENCY UNSATISFACTORY
REPORT. SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH SECTION
II,T.O. 00-35D-54.

A. 4042SW 61-1. CRITICAL SAFTY HAZARD.

B. 186059 SERIAL NUMBER

C. 330403-21 MANUFACTURERS PART NO.

D. AJA4 FUEL CONTROL (BENDIX)

E. KC-135A 59-1497

F. NONE

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PAGE TWO RJEBHB 2

1189

- G. FUEL NOTED LEAKING IN VICINITY OF THE TDTER RESET AND MAX.
;033\$ -0'S\$,8,& 978,&&. IT APPEARS THAT PISTON RING SEAL-81
OR PREFORMED PACKING -82 AND -84 ARE DISCREPANT ALLOWING BODY
FUEL TO LEAK FAST INTO THE WATER RESET HOUSING -101 DISCIPING
THROUGH VENZ HOLES IN THE HOUSING AND AROUND SCJEW ASSYS -42
AND -43 THRU TUBES -39. T.O. REF. 6J3-4-13-63, FIG 2-20
- H. REMOVE AND REPLACED WITH LIKE ITEM.
- I. FLEET INSPECTION IS BEING MADE THIS DATE, YOU WILL BE ADVISED.
- J. THREE(3)
- K. RECOMMEND BETTER QUALITY CCNTRCL AND BENCH CHECK PROCEDURES.
- L. 355:45 HOURS
- M. EXHIBIT BEING HELD FOR DISPOSITION INSTRUCTION.
- N. JACK E. WILLIAMSON, TSGT., USAF, AF 14333211, 2571/DI 69844.
- 28/8200Z JAN RJBHB

NNNNJZCZCDMA692

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FEB 1 2 20 PM '61

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P 272240Z ZEX

FM 4136 STRATWG MINOT AFB NDAK

TO RJWFNH/SAAMA KELLY AFB TEX

INFO RJWZDMB/AFPR BOEING AIRPLANE COMPANY SEATTLE WASH

RJEDSQ/WADD WRIGHT PATTERSON AFB OHIO

RJWFK/OCAMA TINKER AFB OKLA

RJWZNF/USAF DIG NORTON AFB CALIF

RJEDSQ/AMC WRIGHT PATTERSON AFB OHIO

BT

UNCLAS. DCM 6158. IMMEDIATE ACTION REQUIRED.

EUR SUBMITTED IAW T.O. 00-35D-54.

ACTION FOR: DM4 SAC, SANSI SAAMA. INFO FOR: OCSI OCAMA, OORSTE
AFPR, B-52/KC-135 OES, USAF DIG DIR SAFETY/AFSCA-3, DM4 ALL AIR
FORCES AND AIR DIVISIONS, DCM AND PIP CONTROL ALL BOMB WINGS, STRAT
WINGS AND REFUELING WINGS.

A. CRITICAL SAFETY HAZARD.

B. 4136SW-61-4 - 27 JAN 61.

C. PUMP ASSY - FUEL TO 1C-135(K)A-06 CODE 23215 CLASS 2915.

D. PART NUMBER 022994-02-01 SERIAL NUMBERS PE 247, 543, 2345,

1205

PAGE TWO RJWBKA 16

2055, 2193. T.O. 6J10-4-52-4.

E. PESCO PRODUCTS INC., BEDFORD, OHIO.

F. J57-P-59W ENGINES. KC-135A AIRCRAFT 58-291, -298 AND -120.

G. FIVE (5) WORN EXCESSIVELY. 25 JAN 61 TO 27 JAN 61.

H. FIVE (5) SPECIAL INSPECTION. 25 JAN 61 TO 27 JAN 61.

I. FIVE (5) REMOVE AND REPLACE. 25 JAN 61 TO 27 JAN 61.

J. FIVE (5).

K. TWENTY (20) MANHOURS.

L. DURING COMPLIANCE WITH T.O. 1C-135(K)A-1051, DATED 23 JAN 61, IN THE PROCESS OF MEASURING SPLINES FOR WEAR, IT WAS EVIDENT THAT ALL SPLINES SHOWED SIGNS OF WEAR AND DRIVE SHAFT SPLINE, PART NUMBER 02-10969, T.O. 6J10-4-52-4, FIGURE 2, INDEX 28, WAS REMOVED FOR MEASURING. IT WAS THEN NOTED THAT EROSION HAS TAKEN PLACE ON THE BEARING, FRONT COVER DRIVE, PART NUMBER 02-11786, FIGURE 2-23, AND BEARING BODY DRIVEN GEAR, PART NUMBER 02-12278, FIGURE 2-29, T.O. 6J10-4-52-4. THIS EROSION AREA WAS FAR BEYOND THE SPECIFIED LIMITS CONTAINED IN T.O. 6J10-4-52-3. OPERATING TIME OF DEFECTIVE PUMPS IS FIVE HUNDRED AND SEVEN (507) HOURS AVERAGE. ONE (1) DEFECTIVE PUMP SERIAL NUMBER PE 2470 IS BEING HELD AS UR EXHIBIT.

PHOTOS WILL FOLLOW BY SEPARATE MAILM AFM 66-1 DATA IS NOT APPLICABLE

PAGE THREE RJWBKA 16

IN THIS CASE.

M. DUE TO THE POSSIBILITY OF SHORT SUPPLY OF PUMPS FROM SUPPLY SOURCES, AIRCRAFT COULD BE GROUNDED BECAUSE OF NON-COMPLIANCE WITH T.O. 1C-135(K)A-1051.

N. RECOMMEND DISPOSITION INSTRUCTIONS BE FORWARDED ON EXHIBIT PUMP AND IMMEDIATE ACTION BE TAKEN TO PROVIDE A FIX.

O. KENNETH R SAMPLE, MSGT, 4136TH STRAT WING PIP CONTROL, EXT 5433 (DUTY) PA 7-3735 (NON DUTY).

BT

27/2240Z JAN RJWBKA

NNNN

U.S. AIR FORCE
BOEING SEATTLE WASH

JAN 31 8 00 AM '61

FEB 1 2 28 PM '61

15-19

REPRODUCTION

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MEMORANDUM

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FEB 2 4 16 PM '61
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ENGINEERING DEPT.

Form with fields for name, address, and other information. The name field contains "Boeing Co." and the address field contains "Seattle, Wash."

Immediate action

1297

ZCZCDMA815460ZCWQA552

PP RJWZDMB

DE RJWFFU 49

P 302345Z ZEX

FM COMBOMWG 11 ALTUS AFB OKLA

TO RJWFNK/COMOCAMA TINKER AFB OKLA

INFO RJWXBFR/CINSAC OFFUTT AFB NEBR

RJEDSQ/AMC MCMT WRIGHT PATTERSON AFB OHIO

RJEDSQ/WADD WRIGHT PATTERSON AFB OHIO

RJWZDMB/AFPR SEBAC SEATTLE WASH

RJWZNF/USAF DIGFOR SAFETY NORTON AFB CLAIF

RJEBKF/COMAF 2 BARKSDALE AFB LA

RJEXDHB/COMAF 8 WESTOVERAFB MASS

RJWBKN/COMAF 15 MARCH AFB CALIF

RJWZAS/COMADIV 14 BEALE AFB CALIF

BT

NCLAS FROM DCMQ 5733. 8..3\$8-53 -1589, FOR VMOCAMA

(OCNSP9. INFOR: CINSAC (DM4A), AMC/MCMT (MCMSR), WADD, AFPR-
SEBAC, USAF DIG FOR SAFETY (AFCRS-3), ALL NUMBERED AIR FORCES,
DIVISIONS AND WINGS. SUBJECT: UNSATISFACTORY REPORT - SPECIAL
HANDLING REEUIED I/A/W T.O. 00-35D-54.

A: 11BW-61-12 EMERGENCY QUALITY CONTROL U.R.

B: PUMP ASSY - DUAL FUEL. FSC 2915-659-9817.

C: MFB'S PN 011994-020-01, SN PE 818

D: PESCO PRODUCTS.

E: ENGINE, TURBOJET, ALL J57-58W'S INSTALLED ON KC-135 AIRCRAFT.

PAGE TWO RJWFFU 49

F: SIX PUMPS RECEIVED FROM OCAMA THIS DATE WERE BEING INSPECTED FOR TOLERANCES OUTLINED IN INTERIM URGENT ACTION TOC

1C-135 (K)A-1051 DTD 23 JAN 61.

G: THE COUPLER, DRIVE SHAFT WAS MIKED AND INDECATED .9278.

T.O. 1C-135 (K)A-1051 STATES THAT IF THE COUPLING MEASUREMENT

IS LESS THA .9355 INCH REPLACE THE PUMP ASSY. THE T.O.C.

RECORD ON THE AF FORM 50B TAG ATTACHED TO THE PUMP INDICATED

T.O.C.'S 1C-134(K)A-755 AND T.O.C. 1C-135(K)A-1051 WERE

COMPLIED WITH. INSPECTOR'S NUMBER ON THE TAG WAS OMC 973.

DATE IN INSPECTION BLOCK 28 JAN 61.

H:OX IN ECTED 6

J: CDEFECTIVE 1

K: RECOMMEND THAT THE DEPOT FACILITY EVALUATE THEIR QUALITY CONTROL PROCEDURES AND TAKE THE NECESSARY CORRECTIVE ACTION TO PREVENT DEFECTIVE ITEMS FROM ENTERING SEVICEABLE STOCKS.

FURTHER RECOMMEND THAT ALL SAC UNITS AFFECTED BY T.O.C.

1C-135(K)A-1051 COMPLETE THE INSPECTION REQUIRED BY SUBJECT

T.O.C. REGARDLESS OF INFORMATION IN THE T.O.C. RECORD BLOCK

OF THE AF FORM 50B.

PAGE THREE RJWFFU 49

L: NO OPERATING TIME SINCE OVERHAULED.

M: EFFECTIVE ITEM WILL BE HAND CARRIED TO OCAMA BY MAJOR JAY J.

BROWN 31 JAN 61.

N: DONALD L. RAYFIELD, TSGT, HQ 11BW, DUTY PHONE 351, HOME

PHONE HE2-6238. .

BT

31/0030Z JAM RJWFFU

NNNNKZCZCDMA816

M

A

19

INFORMATION

LED
KGB
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WETWORK

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EMP
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To:	T Boeing Airplane Co.
From:	AF Plans 19...
For:	Action <input type="checkbox"/>
	File <input type="checkbox"/>
	Info <input type="checkbox"/>
Sent by	C. S. G.
Date	ax
Suspense	
Date	

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AR RJWFKG

DE R0WPNK 91C

R 202140Z

FM HQ OCAMA TINKER AFB OKLA

TO AFPR BAC WICHITA KANS

P R 202700Z

FM STAIRDIV WESTOVER AFB MASS

TO RJEDSQ/OCAMA BROOKLEY AFB ALA

INFO RJEDSQ/AMC WPAFB OHIO

RJEDSQ/WADD WPAFB OHIO

RJWPNK/OCAMA TINKER AFB OKLA

TRANSN/USAF DIG FOR SAFETY MARCH AFB CALIF

BT

UNCLAS 4050DCMQ 0693 ACTION FOR MONSA INFO

FOR MGMT AND OCNST OCAMA AFORS-3 USAF DIG FOR

SAFETY DMA SAC 8AF DMMA ENR SUBMITTED IAW T O

00-352-54 A MISSION FAILURE B 4050CARW 61-2

C FUEL AIR TARTLE KC-135/Y/A-06/23411 D NEG

FW 541091FS SN 240 E HAMILTON STANDARD F

KC-135 3636 4 10-IPEN SYSTEM WIRING 9-FAILURE TO

OPERATE 5-IMPROPER OPERATION 3-10693 1-INTERNAL

FAILURE 1-STALLS COMPRESSOR 1-NO OUTPUT 1-LOW

PERFORMANCE 2-MISFIRE 1-CRACKED DATA COLLECTED FROM

PAGE TWO RJWFNK 91C

1 JUN 60 THRU 15 JAN 61 H 33-BETWEEN FLTS - GROUND
CREW 4-BETWEEN FLTS - AIRCREW - NO ABORT DATA COLLECTED
FROM 1 JUN 60 THRU 15 JAN 61 I 23-REMOVED AND
REPLACED 7-ADJUSTED ON AIRCRAFT 4-REPLACED SEAL
GASKET OR PACKING 3-SERVICED DATA COLLECTED FROM 1 JUN 60
THRU 15 JAN 61 J 37 K 138.0 L A TOTAL OF 23 UNITS WHICH
FAILED REQUIRED REMOVAL AND REPLACEMENT OF
THESE UNITS TEN HAD OPEN SYSTEM WIRING AND NINE FAILED
TO OPERATE REFERENCE 4050ARW UR 60-145 WHICH SHOWS BASIC
TREND OF FAILURES IN FUEL AIR STARTERS M PRECEDING
INFORMATION AND REFERENCED UR BASED ON AIRCRAFT ON ALERT
STATUS FAILING TO OPERATE PROPERLY AIRCRAFT 56-3636 WAS
SUBJECT OF 4050ARW UR 60-145 FUEL AIR STARTER WHICH
MALFUNCTIONED ON ALERT STATUS FUEL AIR STARTER WAS
REPLACED ON 27 DEC 60 AIRCRAFT HAD TOTAL OF SIX ADDI-
TIONAL HOURS AT TIME OF REPLACEMENT ON 1 JAN 61 FRE-
QUENT RECENT FAILURES OF END ITEM ON ALERT AIRCRAFT
MAKE READINESS REQUIREMENTS QUESTIONABLE N SUBJECT
FUEL AIR STARTER SN 240 BEING HELD AS UR EXHIBIT
PENDING DISPOSITION INSTRUCTIONS O MORRIS W L SR

PAGE THREE RJWFNK 91C

REGT 4050 DCMQ DUTY PR 81237 HOME 121355Z
BT

20/2143Z JAN RJWFNK

OKLAHOMA CITY AIR MATERIAL AREA
UNITED STATES AIR FORCE
OCAMA Representative Office
c/o Boeing Airplane Company
Seattle, Washington

74-22
~~Handwritten signature~~

ROUTING
EE DUFF
KC BAHRENBURG
DD MASON
HF HIATT

KC-135 FILE

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KG BAHRENBURG
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CCNCSO-1

17 January 1961

ECP DO-KC-135-4651-2, Contract AP34(601)-7786, KC-135 Aircraft, Revise Lubrication Markings on Air Cycle Machine, Fuel Air Starter Compressor and Portable Air Compressor, MIP OC60-1064R23.

OCAMA (CONST)
Tinker AFB, Okla

1. Attached message number RWRST-1-6-1100-18-1544 is forwarded for your information and action as deemed necessary.

2. Subject ECP was requested by OCAMA to furnish material required by TOTO 1C-135(K)A-999. The above TOTO was prepared by OCAMA from T.O. Item 321 and publication has been held in abeyance pending procurement of the necessary materials. Call number E-61-OC-90P has been issued and funds have been obligated and reserved as recommended in the attachment.

3. It is requested that this office be furnished 333 copies of TOTO 1C-135(K)A-999 on or before 27 January 1961, per telecon between this office and CCNCSA, for insertion into kits prior to shipment. Kits will be shipped as soon as possible after 27 January 1961, but not later than 8 February 1961, to AFW 2033, Site E, Tinker AFB, Okla.

4. In view of the above, subject MIP is renumbered to OC60-1064R23X where it will remain until 80% of kit shipment is completed.

Handwritten initials: JF, HH

James G. Smith

Copies to: JAMES G. SMITH
Major, USAF
OCAMA Representative

File
RM
ENG

1 Atch TO CORRESPONDENCE 6-1100
BAC Msg. RWRST-1-6-1100-18-1544

Copies to:
AMC ASC (LMSJ)
OCAMA (WDEESC)
SAC (R4)
BAC Business Office

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TRANSPORT DIVISION
JAN 18 3 12 PM '61
CONTRACT ADM.

RECEIVED
TRANSPORT DIV
ENGINEERING DEPT

JAN 20 9 37 AM '61

To:	Boeing Airplane Co.
From:	AF Plant rep.
For:	Action <input type="checkbox"/>
	Reply <input type="checkbox"/>
	Info. <input checked="" type="checkbox"/>
Sent by:	C.S.G.
Date:	18 Jan 61
Suspense Date:	

A12886

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U S AIR FORCE
BOEING SEATTLE, WASH

MAY 29 1 40 PM '59

24

RECEIVED
AIR FORCE WASH

JUN 1 2 49 PM '59

CONTRACT ADM.

PP RBEGUP RJEBKF RJEBKL RJEDAA RJEDSQ RJESBH RJEXDN RJEZFF RJEZFH

RJWBKN RJWFAP RJWFBG RJWFDB RJWFFU RJWFGM RJWFJP RJWFNK RJWFSK

RJWXB RJWZDL RJWZGP RJWZJL RJWZJM RJWZNF

DE RUWKB 28B

P 292046Z

FM AFPR BOEING SEATTLE WASH

TO RBEGUP/AF ENGR SUPT OFC BAR EAST HARTFORD CONN

RJEBKF/COMDR 2ND AF BARKSDALE AFB LA

RJEBKL/COMDR 4238STW BARKSDALE AFB LA

RJEDAA/COMDR MATS SCOTT AFB ILL

RJEDSQ/COMDR WADC WPAFB OHIO

RJEDSQ/COMDR AMC ASC WPAFB OHIO

RJESBH/COMDR 4228STW COLUMBUS AFB MISS

RJEXDN/COMDR 8AF WESTOVER AFB MASS

RJEXDN/COMDR 57AIRDIV WESTOVER AFB MASS

RJEZFF/COMDR 1001 ABWG ANDREWS AFB MD

RJEZFH/COMDR 42BW LORING AFB ME

RJWBKN/COMDR 15AF MARCH AFB CALIF

RJWFAP/COMDR 28BW ELLSWORTH AFB SDAK

RJWFBG/COMDR 810 AIRDIV BIGGS AFB TEX

RJWFDB/COMDR 4123SW CLINTON SHERMAN AFB OKLA

RJWFFU/COMDR 816 AIRDIV ALTUS AFB OKLA

RJWFFU/COMDR 11BW ALTUS AFB OKLA

RJWFGM/COMDR 4130 STW BERGSTROM AFB TEX

FILE

BKC

EMP

ENG

BFB

DEP

29-10018 E
(closed)

Ham - Std
F/A starters
summary

(T)	Docing Alkyline Co
	AF Plant WASH
	RECEIVED
	29 May 59
	note

65-1139-E

①

24

RJWFJP/COMDR 6BW WALKER AFB NMEX
RJWFJP/COMDR 47AIRDIV WALKER AFB NMEX
RJWFNK/COMDR OCAMA TINKER AFB OKLA
RJWFSK/COMDR 7BW CARSWELL AFB TEX
RJWFSK/COMDR 19AIRDIV CARSWELL AFB TEX
RJWXBR/COMDR CINCSAC OFFUTT AFB NEBR
RJWXBR/COMDR 3902 ABW OFFUTT AFB NEBR
RJWZDL/COMDR 14AIRDIV TRAVIS AFB CALIF
RJWZCP/COMDR 92BW FAIRCHILD AFB WASH
RJWZJL/COMDR 4134STW MATHER AFB CALIF
RJWZJM/COMDR 93BW CASTLE AFB CALIF
RJWZNF/OTIG USAF NORTON AFB CALIF

AF GRNC

BT

UNCLAS OCRST-6-5-1139-E FOR OCNSP, WCL0D-31C, DM4, LMSJ, WCOF,
AFCDI-2, SALEK, PI CONTROL OFFICER; ALL AF, BW, AIRDIV, STW, ABWG
AND ABW FOR DM. SUBJ: MIP OC9-10018E, HAMILTON-STANDARD FUEL AIR
STARTERS, FAS-450-16-18-21-22, KC-135 ACFT. 1. THIS OFFICE RECEIVED
EUR 6BW 59-40 CITING THE FAILURE OF FUEL AIR STARTER TO FUNCTION.
THE SUBJ MIP WAS ESTABLISHED WITH CONTR AND VENDOR FOR INVESTIGATION
AND FOR RECOMMENDED CORRECTIVE ACTION. THE FOL EUR'S WERE RECEIVED
CITING VARIOUS DIFFICULTIES AND FWD TO THE CONTR AS REPEAT ON THE
PREVIOUSLY ESTABLISHED PROJ; EUR'S SSN NRS 6BW 59-40, 6BW 59-86,

6-5-1139-E

BW 59-103, 7BW 59-68, 7BW 59-81, 7BW 59-83, 7BW 59-136, 7BW 59-137, 11BW 59-50, 4130 SW 59-17, 4130 SW 59-25, 4228 SW 59-31, 4228 SW 59-65, 1001ABW-59-117, 3902 ABW 59-78. 2. INVESTIGATION REVEALED THAT MALFUNCTIONS REPORTED IN UR 6BW 59-40, 7BW 59-137 AND 11BW 59-50 OCCURRED WITHIN THE STARTER ELECTRICAL CONTROL BOX. THE ONE UR EXHIBIT RECEIVED AT THE VENDOR'S FACILITY, APPLICABLE TO UR SSN 6BW 59-40, DASH 16 SER NR 11550, WAS TEST FIRED, AND FUNCTIONAL TESTS WERE PERFORMED SATISFACTORILY. THE EXACT CAUSE OF THE MALFUNCTION COULD NOT BE DETERMINED. HOWEVER, OTHER MALFUNCTIONS WITHIN THE STARTER ELECTRICAL CONTROL BOX RECEIVED AT THE CONTR WERE FOUND TO BE PDN DEFICIENCIES. THE VENDOR HAS INITIATED A MORE RIGID QUALITY CONTROL INSPECTION THAT WILL ELIMINATE THE MALFUNCTIONS DUE TO PDN DISCREPANCIES. A. UR 11BW 59-50 WAS RECEIVED AND DID NOT QUOTE STARTER SERIAL NR, OR THE AVAILABILITY OF THE EXHIBIT. HOWEVER, IT WAS ASSUMED THAT THE REPORTED FAILURE WAS ON ONE OF THE EARLIER MODIFIED DASH 22 STARTERS AND THAT NO CHANGES WERE MADE TO THE CONTROL BOX DURING MODIFICATION. 3. THE FOL UR WERE RECEIVED AND ARE APPLICABLE TO THE -21 AND -22 STARTERS: EUR SSN NR 6BW 59-86, 6BW 59-103, 7BW 59-56, 7BW 59-68, 7BW 59-81, 7BW 59-83, 4130 SW 59-17, 4228SW 59-31, 1001 ABW 59-117, 7BW 59-137 AND 4130 SW 59-221. A. INVESTIGATION OF THE ABOVE REPORTED FAILURES

Ham - Std Starters.

PAGE THREE RUWKBF 28B

REVEALED THAT MALFUNCTIONS WERE CAUSED BY PRIMARY OR SECONDARY SWITCH FAILURES OR BOTH. THE TRIP-OUT OF THE SECONDARY SWITCH IS PRECEDED BY THE MALFUNCTION OF THE PRIMARY SWITCH UNLESS A PREMATURE TRIP-OUT OCCURS. IN THE EVENT OF A TRIP-OUT, STARTER REMOVAL IS RQR, THUS CAUSING NUISANCE STARTER CHANGES. B. THE VENDOR HAS MADE RETROFIT CHANGES AT OVERHAUL EFFECTIVE AT STARTER SER NR 12711 AND ONE. THE SECONDARY SWITCH SETTING WAS INCREASED FROM 2700 PLUS OVER MINUS 100RPM TO 2900 PLUS OVER MINUS 100RPM TO MINIMIZE PREMATURE SECONDARY SWITCH ACTUATIONS /TRIP-OUTS/. C. AS ADDITIONAL INFO, THERE ARE TWO TYPES OF PRIMARY CENTRIFUGAL SWITCHES THAT HAVE BEEN USED INTERCHANGEABLY IN THE STARTERS. ONE MODEL OF THE SWITCH HAS A SOLID PIN TYPE ACTUATING BUTTON. IN SOME CASES THE PIN WAS MADE OF A SOFT MATERIAL WHICH WAS SUBJ TO WEAR THAT RESULTED IN A CHANGE TO THE CUT-OUT SPEED SETTINGS. THE OTHER TYPE SWITCH HAS A BALL AND SOCKET TYPE BUTTON WITH HARDENED SURFACES THAT ARE RESESTANT TO WEAR. THE LATTER TYPE IS INSTALLED IN ALL STARTERS EFFECTIVE AT SER NR 12852, AND ON. THE MANUFACTURER RECOMMENDED THAT ALL STARTERS BE CHANGED AT OVERHAUL TO THE BALL AND SOCKET TYPE SWITCH. THIS RECOMMENDATION WAS APPROVED AND IS BEING ACCOMPLISHED BY HAMILTON STANDARD ENGINEERING CHANGE 47911 WHICH REPLACES THE SWITCH AND BRACKET ASSY, PART NR 508581, WITH SWITCH AND BRACKET ASSY, PART NR 549530 AT TIME OF OVERHAUL. 4. UR 4130 SW 59-25 WAS INVESTIGATED AND IT WAS DETERMINED THAT THE STARTER MALFUNCTION WAS ATTRIBUTED TO FAILURE OF PRESSURE SWITCH. THE CONTR RECORDS

PAGE FOUR RUWKF 28B

INDICATE THAT THIS IS THE ONLY MALFUNCTION OF THIS PART REPORTED TO DATE. THEREFORE, NO CORRECTIVE ACTION IS RECOMMENDED PENDING THE RECEIPT OF ADDITIONAL REPORTS. 5. UR 7BW 59-98 WAS INVESTIGATED AND IT WAS DETERMINED THAT THE MALFUNCTION WAS CAUSED BY BURNER PRESSURE SWITCH FAILURE. THIS SWITCH WAS REPLACED ON PDN ACFT BY PRR 4415, EFFECTIVE AF 57-1485 THROUGH AF57-1495, WITH AN OIL FILLED TYPE SWITCH. RETROFIT WAS ACCOMPLISHED AT HAMILTON-STANDARD CORP BY ECP 4415 DURING OVERHAUL. 6. UR 4228 SW 59-65 WAS INVESTIGATED AND IT WAS DETERMINED THAT STARTER FAILURE WAS CAUSED BY INTERNAL FAILURE OF THE GEAR TRAIN AND CASE. IT WAS ALSO DETERMINED, BASED ON INFO AVAILABLE, THAT THE STARTER UNIT ELECTRICAL SYSTEM HAD BEEN JUMPED DURING AN ATTEMPTED PNEUMATIC START. THIS CAUSED THE UNIT TO OVERSPEED AND RESULTED IN FAILURE. 7. UR 3902 ABW 59-78 AND 42BW 59-110 HAVE UNDERGONE PRELIMINARY INVESTIGATIONS WHICH SHOW THAT NEITHER OF THESE STARTERS HAS BEEN MODIFIED TO THE LATEST CONFIGURATION BY THE CONTR OR THE COMMODITY AMA. 8. INVIEW OF THE FOREGOING EXPLANATION REGARDING THE ACTIONS THAT ARE BEING ACCOMPLISHED TO IMPROVE THE RELIABILITY OF ALL MODELS OF THE HAMILTON-STANDARD FAS-450 STARTER, THIS OFFICE FEELS THAT THE PFOJ CAN PROPERLY BE CLOSED. WITH THE EXCEPTION OF THE INSTALATION OF A NEW BURNER SECTION TO MODIFY THE -21 TO A -22 WHICH WAS DISAPPROVED

PAGE FIVE RUWKF 28B

5

NECONOMICAL UNTIL THE -22 HAS BEEN GRANTED QUALIFICATION
APPROVAL BY THE AF. ALL STARTERS ARE BEING MODIFIED WITH ALL KNOWN
FIXES AS THEY PASS THROUGH THE PDM OR OVERHAUL FACILITY. ALSO
IT SHOULD BE NOTED THAT CONTINUING SURVEILLANCE OVER THE
FUEL-AIR STARTERSYSTEM RELIABILITY PROBLEM IS BEING MAINTAINED
THROUGH AN ACTION ITEM OF THE KC-135 WEAPONS PHASING GROUP. THEREFORE
THIS PROJECT IS BEING RENUMBERED TO PHASE 3 AND CLOSED. IN THE
EVENT FUTURE SERVICE REPORTS PROVIDE NEW RELIABILITY INFO ON THE
LATEST CONFIGURATIONS THESE FACTORS WILL BE SEPARATELY CONSIDERED
AT A LATER DATE

BT

29/2125Z RUWKF

NNNN

me

BOEING AIRPLANE COMPANY
235 American National Bldg.
Oklahoma City, Oklahoma

VMS
HH
CH

WDB
NDC
GEO
WBD

June 22, 1960

1-2400-4-1262

FILE 04070
KC 135
LECLND

To: D. R. Selbel

Subject: FAS Air Bottle Control Valve, KC-135

Reference: 6-7171-1-12559 Dated June 13, 1960

Reference letter requested quantity and reason for overhaul of three versions of subject valve. The following information was furnished by OCAMA, Commodities Division:

<u>Part Number</u>	<u>Quantity Overhauled</u>
38E13-8A (Bendix)	None - A quantity of these valves have been procured. Mobile AMA will control this item.
38E13-3A (Bendix)	No record of procurement.
84891 (Kldde)	From July 1, 1959 to date, a total quantity of 402 valves have been subject to overhaul. No record maintained prior to fiscal year 1960.

Shop personnel were contacted for the reason for overhaul - their comment was as follows:

Presently, the attrition rate on the air pressure gage, Bendix Part Number 643897, Stock Number 6685-726-1908 is approximately 100-115%. A large percentage of valves returned for overhaul are found to operate satisfactorily but the air pressure gage is either inoperative or inaccurate. Physical inspection of the Part Number 643897 gauge shows it to be flimsy and subject to Bordon tube damage whenever jarred or subjected to rough handling. Effect of normal engine vibration is unknown, but "kid glove" handling is required during shipping, installation and normal maintenance. The "115%" failure rate is due to gage failure during functional pressure testing after valve overhaul. The overhaul T.O. was not checked for functional test air pressure

June 22, 1960
1-2400-4-1262

requirements; however, OCAMA shop personnel indicated the T.O. requirements were complied with. They indicated that two or three applications of the specified air pressure could result in gage failure. This problem was not encountered with the original "U.S. Gage Company" gage.

In cases when actual valve failure was found, one main reason was due to "O" ring enlargement. Evidently, oil from the F/A starter air compressor gets into the valve, causing the "O" ring to swell and bind the shuttle. Apparently two sources for the "O" ring have been used, both during initial installation and overhaul. At present, only the "O" ring subject to enlargement is being furnished to the OCAMA shop. This is Part Number 6227B-14, Stock Number 6600-589215-7, Manufactured by Stillman Rubber Company (sample attached). Following our discussion, OCAMA shop supervisory personnel indicated they would try to obtain the other "non-swelling" "O" ring. They didn't have a manufacturer, part number or stock number to go by as the man actually doing the overhaul could identify the good "O" ring only by the color markings. He indicated that he would save samples of both types of "O" rings when available from subsequent overhaul. These parts will be forwarded when available.

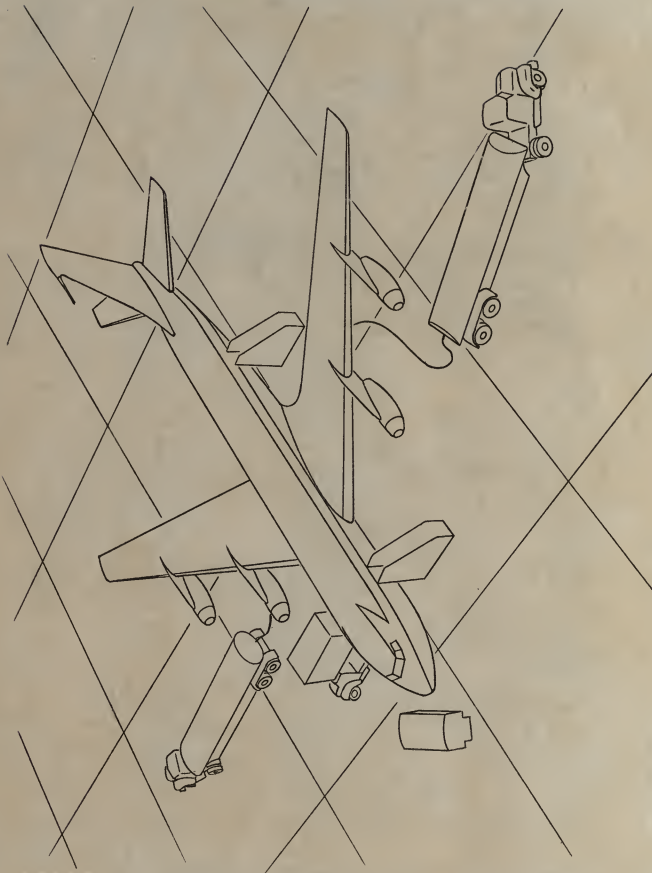
W. J. Groseclose
W. J. Groseclose
Staff Representative
Engineering

WJG/sp

Attachment

BOEING 707
Stratoliner
MAINTENANCE MANUAL

SERVICING
Servicing General
Maintenance Practices



Typical Terminal Service Arrangement
Figure 202

6. Toilet Servicing

- A. Forward and aft toilet drain panels are located on lower right side of fuselage. The forward toilet service drain panel is located at station 304, right buttock line 45 and water line 165. The panel contains toilet sewer drain, waste water drain, forward and aft flush connection, water waste valve, and forward and aft sewage valves. The aft toilet drain panel is located at body station 1413, buttock line zero, and water line 190 and contains a toilet sewage drain, left and right flush valves, and left and right flush connection.

7. Water Servicing

- A. The forward water tank pressure filler and drain connection is located on left side of body station 357 at water line 154.
- B. Aft water tank filler and drain connection is located at body station 1265, water line 184. (See chapter 38-0.)
- C. The water injection tank for airplanes equipped with JT3C-4 engines has a capacity of 450 U.S. gallons. The tank filler is located on outside of body near trailing edge of wing on left side. Provisions for installation of two additional tanks in aft wheel well area have been added to accommodate water injection demands for JT3C-6 engine installations. The additional tanks each have a capacity of 142 U.S. gallons, and are interconnected to main tank.

SERVICING

1. General

- A. The design configuration of the 707 airplane provides for most major servicing to be accomplished on right side of fuselage. Passenger loading doors are located forward and aft on left side of fuselage to avoid interference during ground servicing activities.

2. Air Servicing

A. Hydraulic Accumulators.

1. The utility, auxiliary, and brake hydraulic accumulators are located in the right wing trailing edge, just outboard of wheel well. Utility and auxiliary accumulators are air precharged to 2000 psi and the brake accumulator is air precharged to 1500 psi.

3. Fueling

A. Pressure Fueling

1. A pressure fueling system is installed with two fuel adapters located on lower surface of each wing. Fueling control panels are located adjacent to adapters for manual operation and visual reference by a ground service operator. (See chapter 28-0.)

4. Hydraulic Fluid Servicing

A. Hydraulic Tanks.

1. A 7-gallon hydraulic supply reservoir is located in left wing trailing edge, outboard of wheel well and just aft of rear spar. In servicing, the reservoir is filled to the 5-5/8-gallon position to allow space for fluid expansion. If hydraulic system has been completely drained, 27 to 30-gallons of fluid will be required to service system. The 707-121 uses Skydrol 500 as an operating fluid.

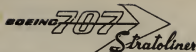
5. Oxygen Servicing

A. Oxygen System.

1. Oxygen system replenishment is accomplished by removal of four oxygen cylinders located overhead behind a drop ceiling panel between stations 1200 and 1240.

B. Portable Oxygen Bottles.

1. Two portable oxygen bottles are located in forward clothes closet and two bottles are in aft closet.



MAINTENANCE MANUAL

CHAPTER 12

SERVICING

TABLE OF CONTENTS

<u>Subject</u>	<u>Subject No.</u>
SERVICING - GENERAL	12-1-0
ACCESS AND INSPECTION OPENINGS	12-2-0
CLEANING AND WASHING	12-3-0

PLACARDS (MARKINGS) - DESCRIPTION AND OPERATION

1. General

- A. Placards are placed on both, the interior and exterior of the airplane. Some of them give information as to what procedures to follow when servicing the airplane units. Some of them give a CAUTION or WARNING in places of potential damage or danger. Most of the larger placards on the exterior of the airplane are for identification. The insignia and exterior markings on the airplane are applied by silk screening, decals or stencils. The interior markings are applied by decals, metal-cals or stencils. Stenciling or silk screening that becomes damaged must be repaired. Decals and metal-cals that become damaged must be replaced. The application procedure for decals varies with the type of decal used and the location and type of surface to which it is applied. Care must be taken to clean the receiving surface thoroughly and use the proper application procedure.

END

BOEING 707 *Stratoliner*
MAINTENANCE MANUAL

CHAPTER 11

REQUIRED PLACARDS

TABLE OF CONTENTS

<u>Subject</u>	<u>Subject No.</u>
PLACARDS	11-0

ENGINE AND NACELLE ANTI-ICING SYSTEMS - DESCRIPTION AND OPERATION

1. General

- A. The engine nose cowl and engine inlet guide vanes are anti-iced by engine high pressure compressor bleed air. The air is ducted from the bleed port of each engine to the nose cowl and inlet guide vanes for that engine. Shutoff valves located in each supply line are controlled by an individual switch for each engine located on the pilots' overhead panel.

END

LANDING GEAR

Landing Gear and Door Control System

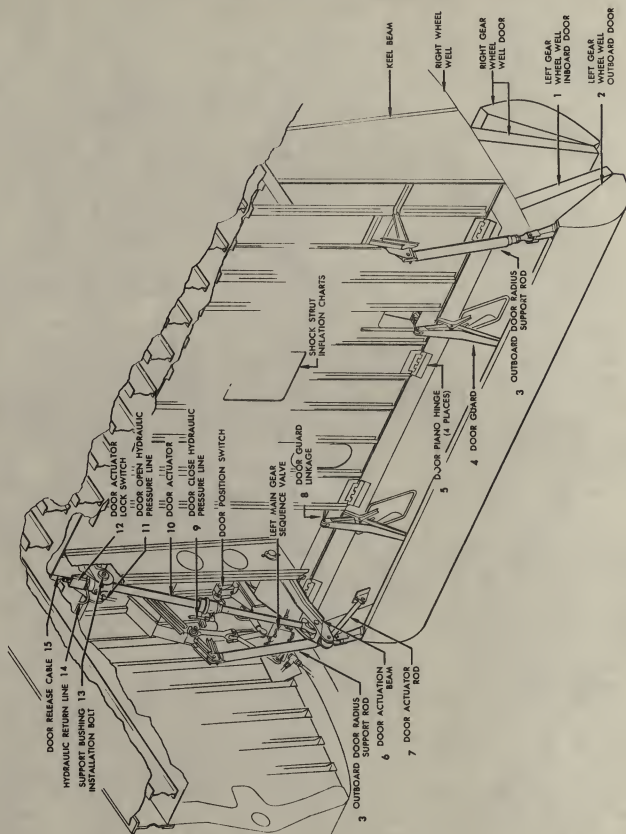
Description and Operation



7. Landing Gear Retraction - Extension Actuators

- A. The landing gear retraction-extension system is provided with hydraulic piston type actuators for actuation and locking of the landing gear. The actuators are jig located and have no adjustments. The head and piston rod terminals are equipped with self-aligning bearings with a lube fitting on terminal housing. The landing gear retraction-extension system actuators include: wheel well door actuators, landing gear actuators, landing gear lock actuators, main gear side strut actuator and nose gear lock retention actuator.
- B. Wheel Well Door Actuator
 - (1) Main Gear Door Actuator
 - (a) The main gear door actuator, figure 6, is located at forward inboard end of each main wheel well. The actuator receives hydraulic pressure from landing gear positioned door control valve. The actuator cylinder end is trunnion mounted to upper side of keel beam web. The actuator rod end is attached to a jig located non-adjustable actuator beam pivoted on keel beam. The actuator extends to open doors and retracts to close doors. The open or close cycle is completed in approximately one second with actuator bottoming at each end of actuation.

July 20/57



Main Gear Door Actuator
Figure 6

MAINTENANCE MANUAL

- (b) The actuator lock mechanism, figure 7, consists of a lock shaft extending out through cylinder end of actuator to actuate "door locked" micro-switch and attached to door release cable from emergency extension shaft assembly and ground door release handle. The lock rod incorporates (on inner end) a pair of folding toggles which actuate two diametrically opposite bronze lock segment blocks. The blocks are supported in broached holes in a steel retainer cylinder and seat behind a flange on end of actuator piston rod, locking it in retracted "door closed" position. A compression spring and spring seat cylinder attached to lock rod by a lock ring loads lock rod towards locked position. System pressure applied at cylinder end of actuator (door open pressure) forces lock rod upward against return pressure and spring load. As rod moves up, toggles fold inward allowing piston to push lock segment blocks inward freeing actuator piston. As actuator piston extends (door opening) a spring loaded retainer segment follows piston to slide outside of lock segment blocks keeping them in for return of piston on retraction (door closing). As actuator extends, displaced fluid returns to hydraulic system by way of a restricted passage in piston rod bearing. Restriction of displaced fluid provides snubbing action to slow piston travel near end of stroke. With hydraulic pressure applied at rod end of actuator for door closing, the piston is retracted to contact spring loaded retainer segment pushing it back and sliding over lock segment blocks. With piston retracted (to bottomed position) and door closed, the spring loaded lock rod is pushed down causing toggles to expand, pushing lock segment blocks out to lock the actuator in retracted position. The lock balance port at cylinder end of actuator is designed to prevent return surge pressures in line to cylinder end of actuator piston from unlocking the door actuator.

3. CONTROL SURFACES

Total Aileron Area AFT of Hinge Line	
Inboard Aileron, including 5.8 Square Feet of TAB area	39 Square Feet
Outboard Aileron, including 5.5 Square Feet of TAB area.....	<u>80.6 Square Feet</u>
TOTAL.....	119.6 Square Feet
Horizontal Tail Area Total.....	500 Square Feet
Stabilizer, to Elevator Hinge Line, including 60.9 Square Feet of Fuselage.....	382.7 Square Feet
Elevator AFT of Hinge Line including 18.0 Square Feet of total area.....	117.6 Square Feet
Span.....	39 Feet 8.4 Inches
Vertical Tail Area Total (not including Fin).....	303.7 Square Feet
Dorsal Fin.....	8.7 Square Feet
Fin to Rudder Hinge Line including 4.9 Square Feet of Fin Tip Hinge Line.....	201.8 Square Feet
Rudder, AFT of Hinge Line including.....	101.9 Square Feet
Fin Height.....	38 Feet 4 Inches

4. BODY

Length.....	138 Feet 10 Inches
Width.....	12 Feet 4 Inches
Cross Section Vertical Height.....	14 Feet 2-1/2 Inches

5. LANDING GEAR

Tread, Main Gear	²² 21 Feet 1 Inch
Wheel Base, Nose to Main Gear.....	52 Feet 4 Inches
Main Gear, Wheels and Tires.....	15.50 x 20
Nose Gear, Wheels and Tires.....	12.50 x 16

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MAINTENANCE MANUAL

CHAPTER 7

LIFTING & SHORING

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<u>Subject</u>	<u>Subject No.</u>
AIRPLANE JACKING	7-1-1

AIRPLANE JACKING

1. General

- A. The airplane is provided with three main jacking points and three stabilizing jacking points, (figure 201). The main jacking points are the two inboard wing jacking points I and II (limited to 78,000 pounds each) and the aft fuselage jacking point III (limited to 13,000 pounds). Main jacking points will collectively carry airplanes weighing up to 169,000 pounds. The stabilizing jacking points are the two outboard wing jacking points IV and V (limited to 12,000 pounds maximum, each), and the forward fuselage jacking point "VI" (limited to 18,000 pounds). In addition, there is a jack pad on under side of each main gear truck axle (limited to 58,000 pounds each) and a jack pad under nose gear axle (limited to 30,000 pounds).
- B. A preliminary figure for wind limitations for outside jacking has been established. The airplane shall not be raised on jacks in winds exceeding 35 miles per hour.

2. Jack Airplane

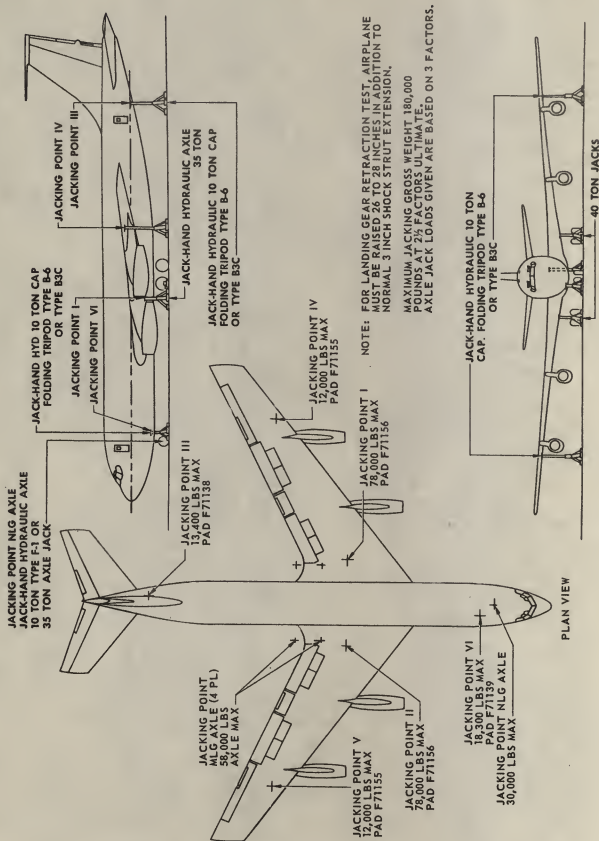
- A. Make sure all landing gear down locks are in place.
- B. Head airplane into the wind if in an exposed area. Lower vertical fin if airplane is to remain on jacks for an extended period of time or if winds are unstable.

CAUTION: DO NOT JACK AIRPLANE IF WINDS EXCEED 35 MILES PER HOUR.

- C. Install jack pads and position jacks per figure 201.

NOTE: Jacks must be equipped with pressure gages or a table used for converting pressure readings to pounds of load at jacking point.

- D. Remove wheel chocks and release parking brakes.



Jacking Diagram
Figure 201 (Sheet 1 of 2)

JACKS

AXLE JACKS	SOURCE	MODEL	CAPACITY TONS	MINIMUM HEIGHT	HYDRAULIC LIFT	SCREW EXTENSION	BASE WIDTH
SMITH NELSON CORP. REGENT	SMITH NELSON CORP. REGENT	3510-51	35	10.5	11.0	6	6.5
		3510-53	35	10.0	10.0	6	12.0
		993R	25	7	10	3	5.5
		1905	25	10	12	4	6
		1921	35	10	11	6	6
		983-S 960-T 1975	5 10 12	6 8 10	10.5 13 16	3 1 NONE	5.5 7.8 10.25
SMITH NELSON CORP. MALABAR WING OUTBOARD, BODY-FORWARD & AFT REGENT	SMITH NELSON CORP. MALABAR WING OUTBOARD, BODY-FORWARD & AFT REGENT	989A	40	60-78-96	44	16	
		2924	75	72	50	20	
		4060-14R	40	60-78-96	44	18	
		5060-10 -14 -15	50	60-78-96	40	16	
		780R	40	60-73	40	18	
		B3C	20	52-77 88-106 124-142	40	15	

JACK PADS NO FLAT TIRE ONE FLAT TIRE TWO FLAT TIRES	JACK PAD HEIGHT (APPROXIMATE) (WITH 3 INCH SHOCK STRUT EXTENSION)				
	I & II 80	III 124	IV & V 136	VI 72	MLG AXLE MLG AXLE
					12.25 10.50 7.50 15.25 12.50 6.00

MAINTENANCE MANUAL

LIFTING AND SHORING
Airplane Jacking
Maintenance Practices

- E. Use plumb-bob and leveling scale in left wheel well (figure 202) to establish level lateral and longitudinal attitude while raising airplane.

NOTE: This method of leveling is accurate enough for general jacking requirements and gear retraction only.

- F. Raise airplane in level attitude with jacks at wing jack pads "I" and "II" and tail jack pad "III" until landing gear clears ground.

CAUTION: JACKS AT PADS "I" AND "II" MUST BE RAISED PRIOR TO OR SIMULTANEOUSLY WITH JACK AT JACK PAD "III." RAISING TAIL JACK AHEAD OF WING JACKS MAY OVERLOAD TAIL JACK POINT BY FORCING NOSE OF AIRPLANE DOWN ON NOSE GEAR OR NOSE STEADY-ING JACK.

Jack pad heights above ground, jack pad maximum allowable loads and a source of jacks to be used are listed below. Jack pad heights are based on a three inch shock strut extension and no flat tires. Airplane must be raised an additional 26 to 28 inches (approximate) for landing gear extension check.

<u>JACK POINT</u>	<u>APPROXIMATE JACK PAD HEIGHT</u>	<u>MAXIMUM ALLOWABLE LOAD</u>
WING INBOARD	80 INCHES	78,000 POUNDS
WING OUTBOARD	136 INCHES	12,000 POUNDS
BODY - FORWARD	72 INCHES	18,300 POUNDS
BODY - AFT	124 INCHES	13,400 POUNDS

JACKS -- WING INBOARD

<u>-SOURCE</u>	<u>MODEL</u>	<u>CAPACITY TONS</u>	<u>MINIMUM HEIGHT</u>	<u>HYDRAULIC LIFT</u>	<u>SCREW EXTENSION</u>
REGENT	989A	40	60-78-96	44	16
	2924	75	72	50	20
SMITH- NELSON	4060-14R	40	60-78-96	44	18
	5060-10,				
	-14, -15	50	60-78-96	40	16
MALABAR	780R	40	60-73	40	18

JACK -- WING OUTBOARD, BODY - FORWARD AND AFT

REGENT	B3C	20	52-70-88	40	15
--------	-----	----	----------	----	----

106-124-142

JACK PAD ADAPTERS

<u>PART NUMBER</u>	<u>USE</u>
F71138	Adapts Jack to fuselage aft jacking point "III."
F71139	Adapts Jack to fuselage Forward jacking point "VI."
F71155	Adapts Jack to outboard wing Jacking Points "IV" and "V."
F71156	Adapts Jack to Inboard Wing Jacking Points "I" and "II."

- G. Raise outboard wing jacks "IV" and "V" and nose jack "VI" until sufficient weight is supported to steady airplane.

CAUTION: DO NOT EXCEED ALLOWABLE LOAD ON JACKS.

NOTE: Lower all jack ram lock nuts as jacks are raised. Maintain a clearance of one-inch from nut to collar until jacking is complete, then snug up nut and tighten lockscrew.

3. Lower Airplane

- A. With jacks supporting airplane per figure 201, lower airplane by first lowering steadying jacks "IV," "V," and "VI" ahead of tail "III" and inboard wing jacks "I" and "II."

NOTE: To lower jacks, turn jack ram lock nuts up preceding jack collar by one-inch.

- B. Lower main jacks "I," "II" and "III" evenly and simultaneously checking continuously to make sure main gear touch ground as soon as, or prior to nose gear, so tail jack point "III" is not overloaded.

CAUTION: IF A JACK "HANGS-UP," THE RAM IS NOT DROPPING INTO CYLINDER. DO NOT PRECEDE JACK COLLAR WITH JACK RAM LOCK NUT BY MORE THAN ONE INCH. "HANG-UP" CONDITION MAY BE RELIEVED BY RAISING AND THEN LOWERING JACK (WORKING JACK) UNTIL FREE. IF "HANG-UP" CONTINUES, IT MAY BE NECESSARY TO RAISE AND CRIB AIRPLANE, AND THEN REPLACE FAULTY JACK.

4. Axle Jacking

- A. Jacking points are provided under each landing gear axle for removal of wheel and tire or brake assembly without raising entire airplane, see figure 201. Axle jack pad load allowables, height dimensions and jacks are listed below.

CAUTION: DO NOT RAISE EITHER END OF MAIN GEAR TRUCK TO EXCEED 15°. DO NOT ATTEMPT TO JACK AIRPLANE WITH JACK UNDER CENTER OF MAIN GEAR TRUCK (UNDER SHOCK STRUT INNER CYLINDER FORK) JACK PADS ARE NOT PROVIDED UNDER FORK OF SHOCK STRUT INNER CYLINDER.

MAINTENANCE MANUAL

AXLE JACK PAD HEIGHT CLEARANCE BETWEEN TIRES

CONDITION	NLG	MLG	NLG	MLG
NO TIRE FLAT	13.1"	14.4"	11.5"	18.5"
ONE TIRE FLAT	10.2"	11.0"		
TWO TIRES FLAT ON ONE AXLE	7.50	6.0		
JACK PAD HEIGHT REQUIRED FOR WHEEL CHANGE	16.6	18.4		
MAXIMUM LOAD AT A SINGLE JACK PAD	NLG - 30,000 POUNDS			
	MLG - 58,000 POUNDS			

JACKS:

SOURCE	MODEL	CAPACITY TONS	MINIMUM HEIGHT	HYDRAULIC LIFT	SCREW EXTENSION	BASE WIDTH
REGENT	993R	25"	7"	12"	3"	5.5"
	1905	25	10	18	4	6
	1921	35	10	11	6	6
	983-S	5	6	10.5	3	5.5
	960-T	10	8	13	4	7.8
	1975	12	10	16	NONE	10.25
SMITH- NELSON CORPS.	3510-51	35	10.5	11.0	6	6.5
	3510-53	35	10	10	6	12.0

6. Jack Airplane With Collapsed Gear

A. Nose Gear Collapsed

- (1) Raise airplane by using a 40-ton jack at each inboard wing jack pad, "I," and "II." Do not exceed 78,000 pounds on each inboard wing jack.
- (2) Crib forward fuselage as airplane is raised by wing inboard jacks.
- (3) Follow fuselage aft jack pad down with a Regent Model B3C jack. Do not exceed a load of 13,400 pounds on fuselage aft jack pad.
- (4) If airplane is to be moved without using nose gear, use flat bed truck (capacity 20,000 pounds) under fuselage forward section. Tow airplane using two tractors attached by cable to main gear towing lugs. Coordinate movement of tractors and truck.

B. One Main Gear Collapsed

- (1) Place pneumatic bag, 1130, 1D-988 or equivalent under lower wing surface between front and rear spars (in area of wing inboard jack pad) but clear of jack pad so when airplane is raised sufficiently a jack can be inserted to finish raising procedure, see figure 204.

NOTE: Trucks or tractors attached to airplane by anchor lines must be used to keep airplane from rolling on pneumatic bags, see figure 203 and paragraph "D" below. Wood cribbage should be used under fuselage and wing structure to ensure against bag collapse or any slippage. Pneumatic bags may be inflated with a type A-1 (3.5 psi) blower or a Worthington air compressor or by air-nitrogen bottles, used with a regulator for inflation control.

C. Both Main Gear Collapsed

- (1) Place pneumatic bags under wing lower surface between spars (clear of wing inboard jack pads), see figure 204.
- (2) Anchor airplane by anchor lines fastened to trucks or tractors to prevent airplane from rolling on air bags. (See figure 203 and paragraph "D").
- (3) Raise airplane by inflating pneumatic bags until jacks can be used on wing inboard jack pads and fuselage aft jack pad. As airplane is raised, crib wing and fuselage with wood timbers. Do not exceed jack pad maximum allowable loads, figure 201.

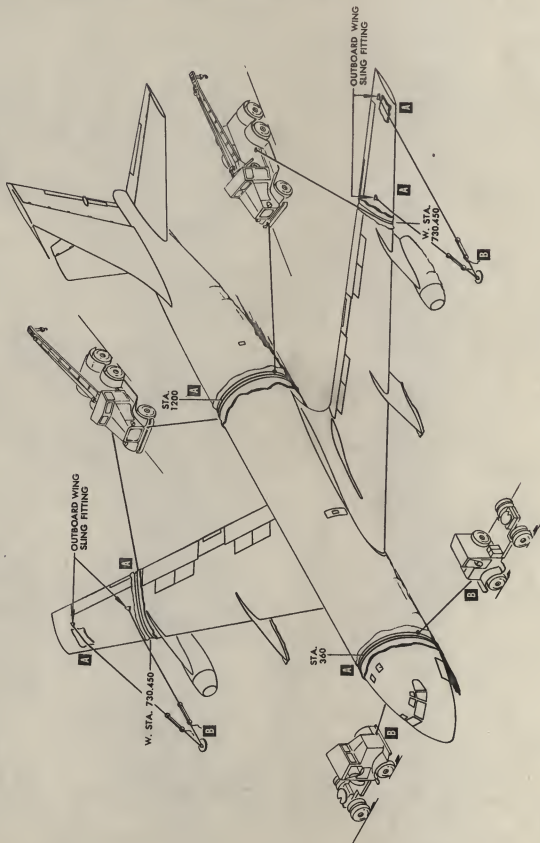
D. Moor Airplane for Pneumatic Bag Raising

- (1) The airplane is not equipped with mooring or tie-down provisions. For emergency mooring and for mooring while using pneumatic air bags for raising airplane, see figure 203 and following instructions.
 - a. Wrap heavy padding around fuselage at station 360.
 - b. Wrap cable around fuselage over padding and directly over fuselage production break (approximately station 360 bulkhead) and attach cables to anchor stakes or heavy truck or tractor.
- NOTE: Anchor cables must be attached to anchor in such manner to facilitate letting-out or taking-in of cable as airplane is raised or lowered.
- c. Attach similar padding and cable at fuselage production break (approximately station 1200) and outboard wing to inboard wing production break.
 - d. Attach mooring fittings to outboard wing hoist sling attachment points and attach mooring cables to be secured to anchors forward of wing.

NOTE

A PROVIDE PADDING FOR ALL CABLE ATTACHMENTS TO AIRCRAFT

B CABLE ADJUSTMENT REQUIRED

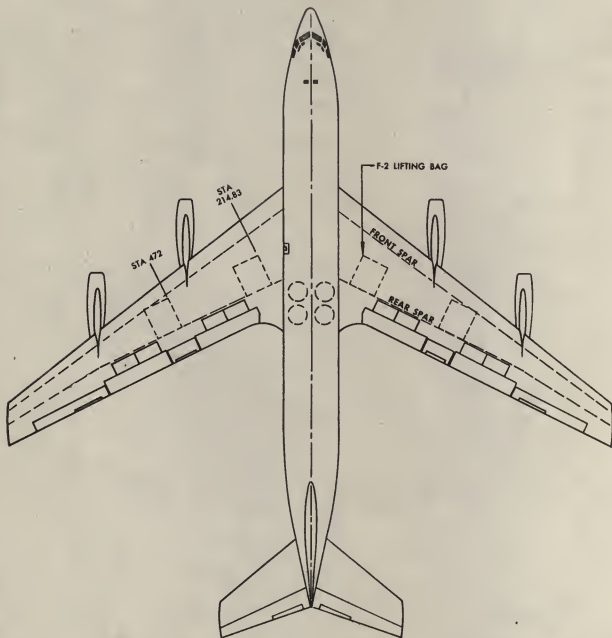


Airplane Mooring for Pneumatic Bag Raising
Figure 202

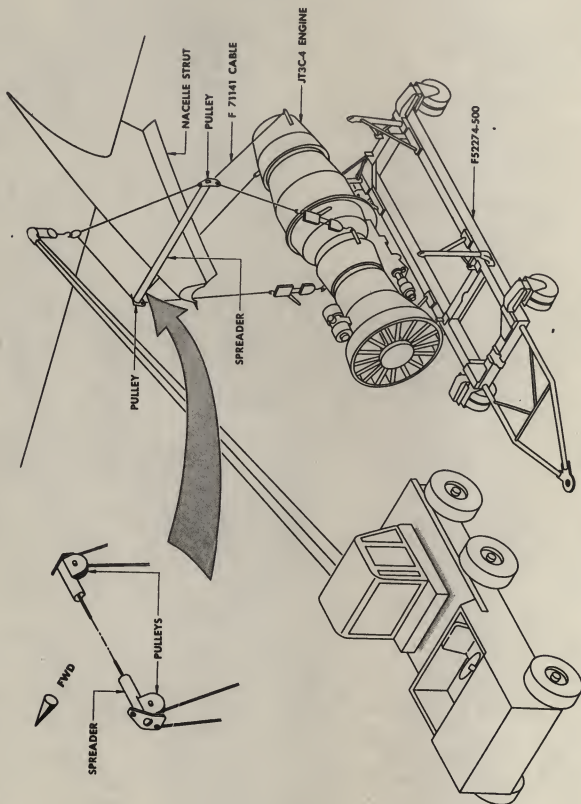
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Pneumatic Bag Placement Under Wing
Figure 203



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Engine Installation Hoisting Equipment
Figure 204

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CHAPTER 8

LEVELING & WEIGHING

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WEIGHING	8-2-1

LEVELING

1. General

- A. The airplane must be level to permit an alignment check of airplane structure following hard landings and following structural repair or modification. The airplane must also be leveled for jacking to prevent side loads from being applied on jacks or pads, see figure 201.

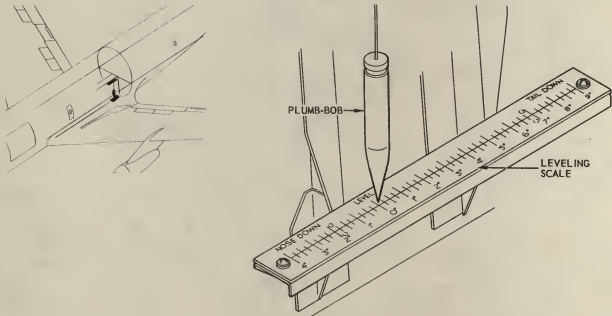
2. Level Airplane

- A. Park airplane on level site (or approximately level).
B. Place main and stabilizing jacks in position and jack airplane until wheels clear ground.

NOTE: Do not load stabilizing jacks.

- C. Attach plumb-bob to hook above leveling provision scale in left wheel well, see figure 201, so plumb-bob just clears scale.
D. Adjust main jacks until plumb-bob is centered fore and aft and laterally on scale to indicate airplane is level.

CAUTION: DO NOT OVERLOAD JACK PADS. BRING STABILIZING JACKS UP JUST ENOUGH TO LOAD THEM FOR STABILIZING.



Airplane Leveling Scale
Figure 201

WEIGHING

1. General

- A. The airplane is weighed after any modification work in which units have been deleted or added to the airplane to affect a change in center of gravity location. Weighing is required for gross weight computation and center of gravity location.

2. Tools and Equipment Required

Cox and Stevens electric weighing unit (or equivalent).

3. Weigh Airplane

- A. Place a weighing cell on each of main jacks positioned under wing in-board jack positions and under fuselage aft jack position, figure 201. See also 7-1-1, figure 201.

CAUTION: AIRPLANE MUST BE LEVEL AND JACKS ALIGNED TO PREVENT SIDE LOADS ON WEIGHING CELLS.

- B. Locate kit on a stand convenient for connecting to weighing cells on jacks.

- C. Connect indicating unit to operating electrical power source and allow tube filaments to warm up to operating temperature for approximately 45 minutes.

CAUTION: FOLLOW OPERATING INSTRUCTIONS FURNISHED WITH WEIGHING KIT FOR PROPER VOLTAGE AND POLARITY.

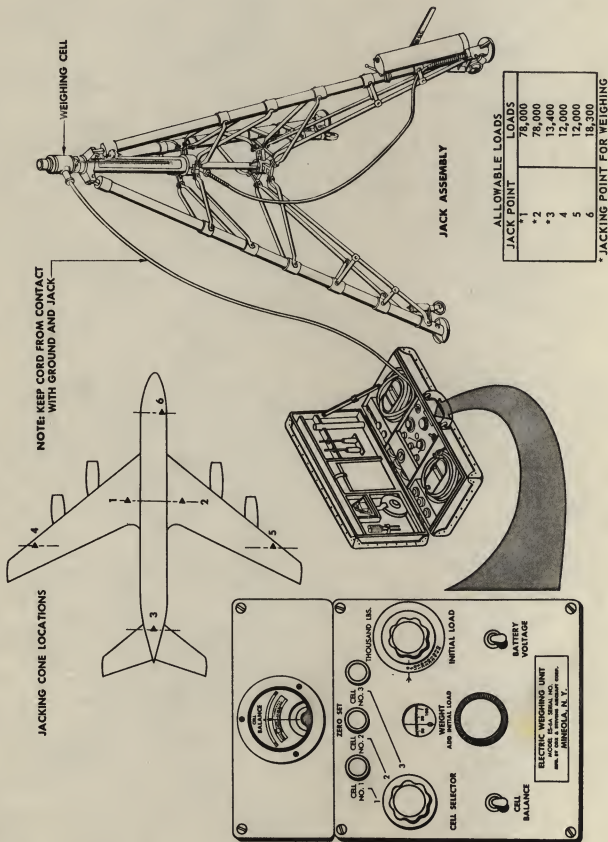
- D. Adjust indicators to zero setting for each weighing cell.

- E. Jack airplane by operating each jack simultaneously to keep airframe in level attitude as checked by leveling scale and plumb-bob in left main wheel well.

CAUTION: OBSERVE JACK PRESSURE GAGES TO AVOID EXCEEDING LOAD LIMITATIONS ON JACK PADS. See 7-1-1, figure 201.

- F. When all tires clear ground, weighing cell load values may be read and recorded.

- G. Lower and reweigh airplane with weighing cells interchanged to check weight and accuracy of weighing cells.



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CHAPTER 9

TAXIING & TOWING

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<u>Subject</u>	<u>Subject No.</u>
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TOWING	9-2-1

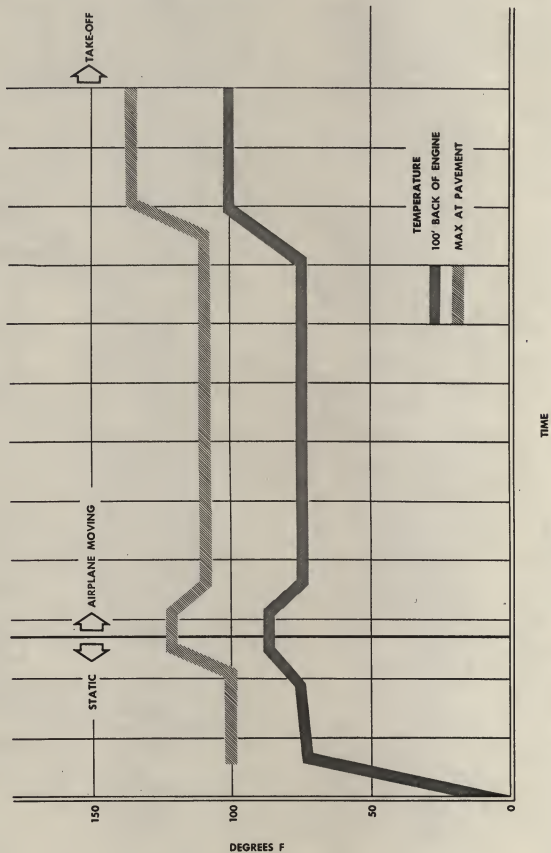
TAXIING

1. General

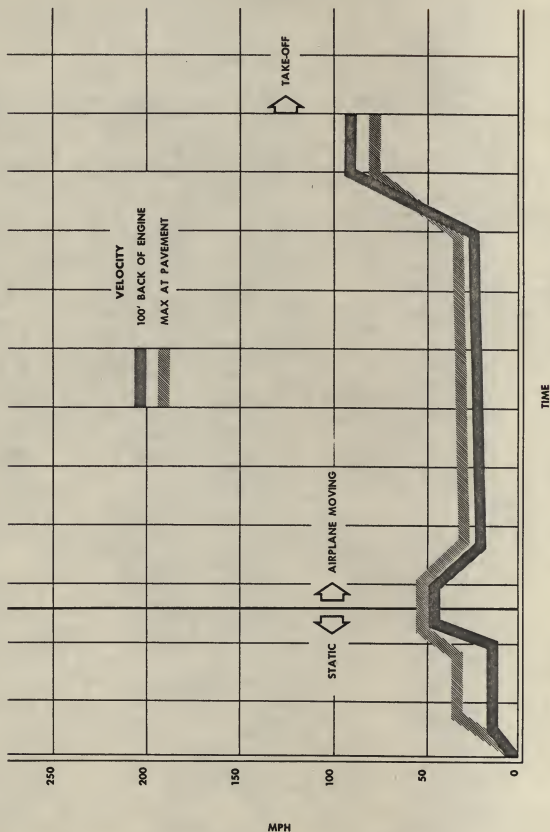
- A. Taxiing of the airplane is no more difficult than taxiing any of large passenger airplanes presently in use. The main difference is that the swept wing configuration places wing tip farther back from pilot's line of sight which creates illusion of less span than that of straight wing airplane.
- B. The 138-foot 10-inch fuselage configuration actually gives an overall length of 143-feet 9-inches from nose tip to elevator trailing tip. Overall span is 130-feet 10-inches.
- C. The maximum taxi steering turning radius of nose gear is 58° on either side of center or a total of 116° turning angle.
- D. It is anticipated that majority of maneuvering at terminals will require no more than 80% thrust and this power would be required only to start a static loaded airplane rolling with nose gear turned from center.
- E. The basis for engine run-up areas may be determined from information in figures 201, 202, 203, 204 and 205.
- F. In regard to foreign object damage picked up through engine (compressor) intakes, every effort should be made to maintain clean parking, taxiway and runup areas. This may be accomplished by cross sweeping with conventional sweepers or by use of heavy duty commercial vacuum cleaners. Studies made by NACA indicate that vortices, generated at engine inlet during some power conditions, may be capable of lifting foreign objects from concrete expansion joints or other ramp irregularities. Ingestion of some objects could cause severe engine damage.

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TAXIING AND TOWING
Taxiing
Maintenance Practices



Typical Operating Temperature
Figure 201

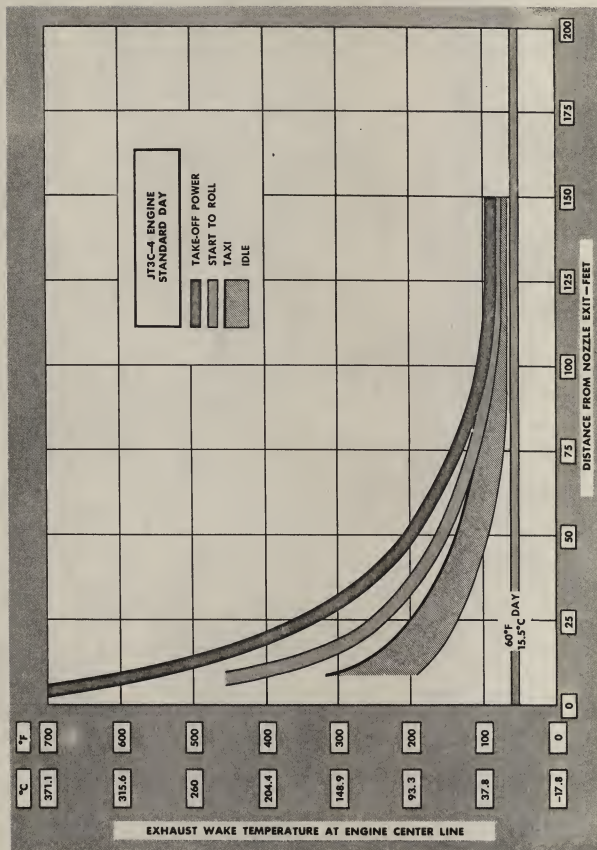


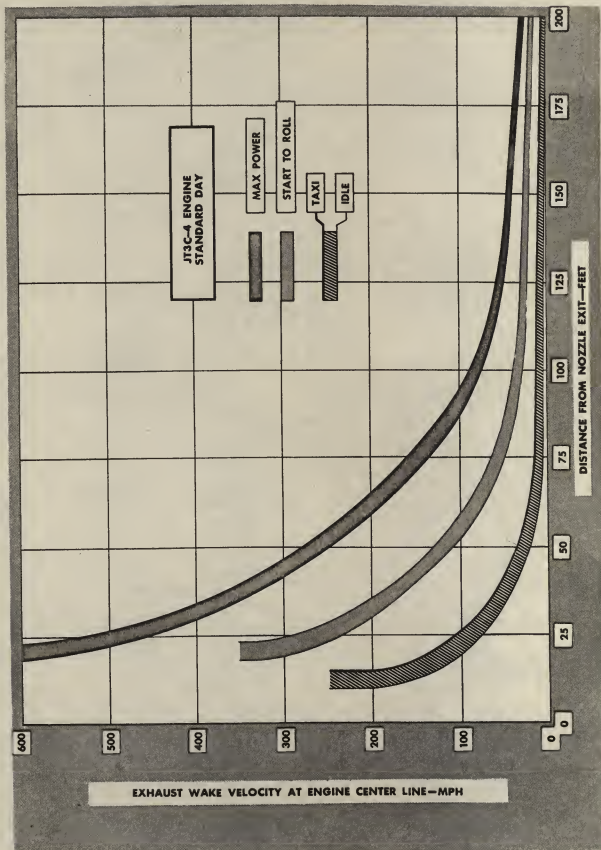
Typical Operating Velocities
Figure 202

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Jet Exhaust Velocities
Figure 204

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END
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Blast Fence
Figure 205

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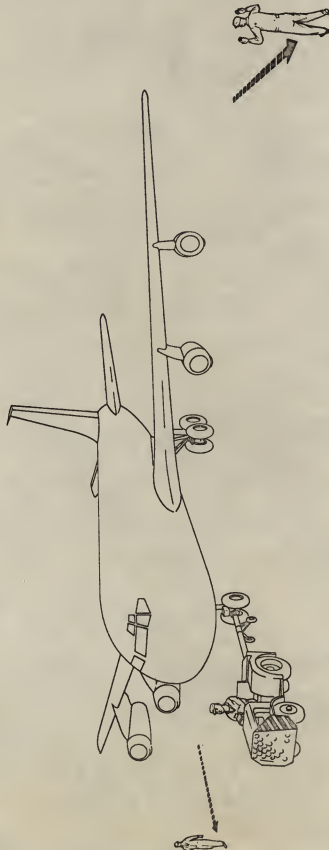
TOWING

1. General

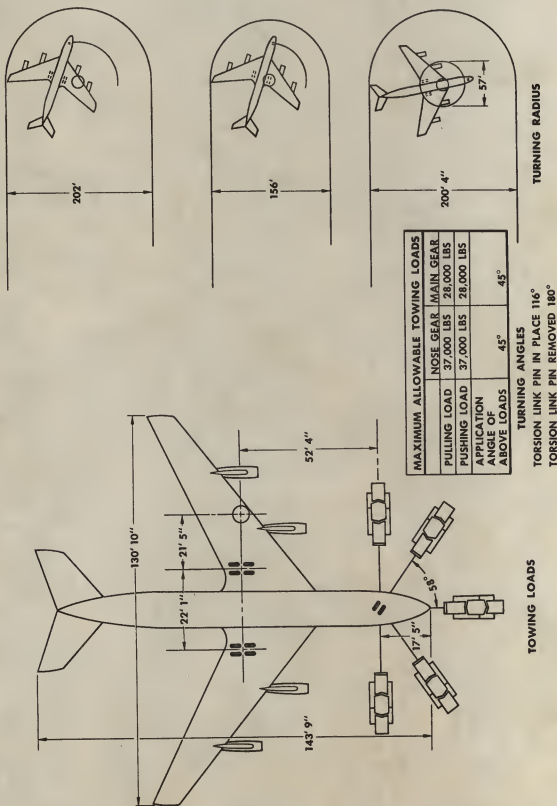
- A. A towing lug is provided on forward part of nose gear strut to which a tow bar can be attached. The lug is designed to attach to a tow bar which consists of a single 8" tube approximately 21 feet long and supported by two wheels when not attached to airplane. The bar connects to airplane with a single pin fitting and is used for towing, pushing and steering the airplane by using a standard type tug tractor.
- B. Under towing conditions, the nose gear wheels must not be turned more than 58° on either side of center. If a sharper turn is desired, the nose gear torsion link pin may be disconnected, allowing nose gear wheels to rotate within 180°. Under this condition, the airplane can be turned within a 72-foot 8-inch radius or a minimum overall diameter of 156 feet. Without torsion link pin disconnected from steering collar, a maximum 58° turn would require a 101 foot radius or an overall turn diameter of 202 feet.
- C. Towing lugs are also provided on forward and aft ends of each main gear truck for attachment of towing cables to aid in moving an airplane mired in snow or mud.
- D. The tow load design for nose gear for pulling or pushing is 37,000 pounds. For each main gear, design tow load is 28,000 pounds. The draw bar load required to handle the airplane at 250,000 pounds gross weight on a 3% grade is 12,500 pounds. The torsional force required to rotate nose wheel with airplane in static condition on a dry concrete ramp is 60,000 inch-pounds maximum.

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TAXIING AND TOWING
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Typical Towing Arrangement
Figure 201

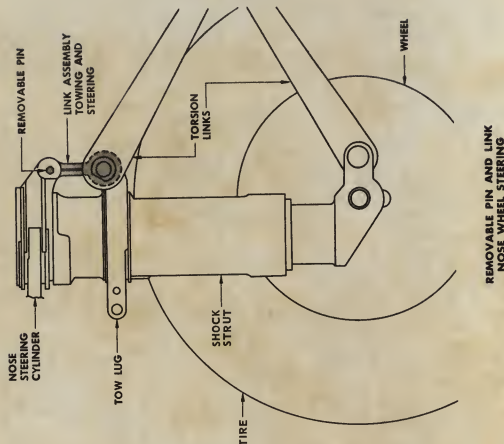


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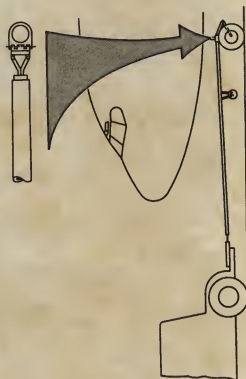
Towing Loads and Turning Radius
Figure 202

USAGE:
FOR TOWING, PUSHING AND STEERING THE
AIRPLANE USING STANDARD TUGS.

DESCRIPTION:
SINGLE 8 INCH TUBE APPROXIMATELY 21 FEET
LONG SUPPORTED, WHEN NOT CONNECTED TO
THE AIRPLANE, BY TWO WHEELS. A LUNNETE
EYE ATTACHES TO THE TUG. A DOUBLE PIN
FITTING ATTACHES TO AIRPLANE
COLLAR ON THE SHOCK STRUT.



REMOVABLE PIN AND LINK
NOSE WHEEL STEERING



BAR ASSEMBLY
AIRPLANE PUSHING AND TOWING

BOEING AIRPLANE COMPANY TRANSPORT DIVISION

FAILURE OR UNSATISFACTORY REPORT

MODEL K35A	SYSTEM IGNITION	0408	PART NO. 313092	PART NAME IGNITOR-SPARK	1605
FACTURED CHAMPION	11583 COLUMBUS	3C	A/C SERIAL 1509	A/C HOURS UNK	DATE FAILED 3 10 9
MAN HOURS REQ. TO FIX AIRP. CHECK ONE	BASE OR OPERATOR NEW OVERHAUL	PART HOURS SINCE 85	EFFECT OF MALFUNCTION CHECK ONE	FLIGHT DEVIATION	ELECT ODOOR OR SMOKE
1 0 1 1 1 5 10 20 50 100 200 250 500 1000 2000	STATE NO. UNK	IN REMARKS	1 NONE 2 DELAY 3 CHAINBACK 4 LENGTH IN REMARKS	1 CANCELED 2 AC IDENT 3 IN TUENT	1 PIPE 2 OTHER 3 REASON IN REMARKS
LOCATION SKETCH - CHECK LOCATION AND POSITION	POSITION	HOW FAILED	DISPOSITION		
	1 OUTB'D 2 L INB'D 3 R INB'D 4 R TB'D 5 LEFT 6 RIGHT 7 UPPER 8 LOWER 9 FORE 0 AFT	SEIZED	5285		
STATION 71 OR POSITION	WHY FAILED	UNKNOWN.	7000		
PART SERIAL NUMBER	MALFUNCTION OCCURRED DURING	24	MALFUNCTION FOUND DURING	18	
REF CAT NO. 2J-J57-54	FIG. NO. 50	INDEX NO. 24	CUSTOMER UP NO. C0-APB	OTHER REF.	
REMARKS: Include background, symptoms, corrective action, recommendations, or sketch, length of delay or turn-back.					

ROUTING

1. **ENGINEER**

2. **MAINTENANCE**

3. **INSPECTION**

4. **REPAIR**

5. **TESTING**

6. **REWORK**

7. **REWORK**

8. **REWORK**

9. **REWORK**

10. **REWORK**

11. **REWORK**

12. **REWORK**

13. **REWORK**

14. **REWORK**

15. **REWORK**

16. **REWORK**

17. **REWORK**

18. **REWORK**

19. **REWORK**

20. **REWORK**

21. **REWORK**

22. **REWORK**

23. **REWORK**

24. **REWORK**

25. **REWORK**

26. **REWORK**

27. **REWORK**

28. **REWORK**

29. **REWORK**

On post flight inspection - found spark ignitor (P/N 313092) seized to electrical lead (P/N 10-160116). Believed due to overtorquing and lack of lubrication on threads when installed.
EXTRACTED DIRECTLY FROM UR

1. On a routine training mission. Engine ignition was used for approximately twenty minutes.
2. On inspection in accordance with 2 AF Twx, DN4A-3738, the spark ignitor (P/N 313092, T.O. 2J-J57-54, figure 50, index 24) was found to be seized to electrical lead (P/N 10-160116, T.O. 2J-J57-54, figure 52, index 19).
3. Spark ignitor (P/N 313092) and electrical lead (P/N 10-1600116) were removed and replaced.

SERVICE ANALYSIS FILE

RCS
3/18

(OFFICE) R.L. Simons.

SIGNATURE

3/18/9

DATE

S-APUR 22217

SHT 1 OF 1

IGNITION REAR MTG

REMARKS: Include background, symptoms, corrective action, recommendations, or sketch, length of delay or turnback.

During periodic - three ignition unit rear mounting brackets were found cracked at the top aft end.

Cause - excessive vibration.

EXTRACTED DIRECTLY FROM UR

1. 100 hr. post flight was in progress.
2. While pulling 200 hr post flight, it was discovered that those ignition unit mount brackets were cracked at top aft end.
3. It is believed that excessive vibration is causing brackets to break.
4. Part was put on order ~~see~~ and broken brackets will be replaced as soon as possible.
5. Recommend using more durable material.

(OFFICE)

SIGNATURE KO Hanzler

DATE _____

S. (F)U

SHT 1 OF

FAILURE OR UNSATISFACTORY REPORT

REMARKS. Include background, symptoms, corrective action, recommendations or sketch, length of delay or turnback.

EXTRACTED DIRECTLY FROM UR

Spark igniter, P/N 313092, was removed and replaced with like serviceable item.
System checked out satisfactory.

PLC
316

S. AF UP 22218
SHT 1 OF 1

BOEING AIRPLANE COMPANY TRANSPORT DIVISION

FAILURE OR UNSATISFACTORY REPORT

K35A SYSTEM		0408		PART NO 265015		PART NAME COIL-IGNITION		0620	
MANUFACTURER PoW		77445		PART ORIGINATOR COLUMBUS 3C		A/C SERIAL 1505		DATE PAID 4 29	
MAN HOURS REQ TO FIX AIRP CHECK ONE		PART NUMBER INCE 64		REASON FOR FAILURE		REPAIRS		REMARKS	
1. 1 2. 3 3. 4 4. 5 5. 6 6. 7 7. 8 8. 9 9. 10 10. 11 11. 12 12. 13 13. 14 14. 15 15. 16 16. 17 17. 18 18. 19 19. 20 20. 21 21. 22 22. 23 23. 24 24. 25 25. 26 26. 27 27. 28 28. 29 29. 30 30. 31 31. 32 32. 33 33. 34 34. 35 35. 36 36. 37 37. 38 38. 39 39. 40 40. 41 41. 42 42. 43 43. 44 44. 45 45. 46 46. 47 47. 48 48. 49 49. 50 50. 51 51. 52 52. 53 53. 54 54. 55 55. 56 56. 57 57. 58 58. 59 59. 60 60. 61 61. 62 62. 63 63. 64 64. 65 65. 66 66. 67 67. 68 68. 69 69. 70 70. 71 71. 72 72. 73 73. 74 74. 75 75. 76 76. 77 77. 78 78. 79 79. 80 80. 81 81. 82 82. 83 83. 84 84. 85 85. 86 86. 87 87. 88 88. 89 89. 90 90. 91 91. 92 92. 93 93. 94 94. 95 95. 96 96. 97 97. 98 98. 99 99. 100 100.		1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.		1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.		1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.		1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.	
LOCATION SKETCH CHECK LOCATION AND POSITION		SECTION 71 OR		HOW FAILED INOPERATIVE		1155		DISPOSITION	
				WHY FAILED UNKNOWN		7000		USED AS IS 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.	
PART SERIAL NUMBER		REF CAT. NO 2J-J57-54		CUSTOMER UR NO COAFB		OTHER REF TWX FSR			
INDEX NO 15		FIG NO 50		901ARS-59-33.		COAFB-901ARS-74T.			

REMARKS Include background, symptoms, corrective action, recommendations or sketch, length of delay or turnback.

*An postflight - found ignition coil inoperative.
Possible cause was extended use of ignition system beyond design limits, in accordance with existing AF regulations.*

EXTRACTED DIRECTLY FROM UR

1. On routine training mission, engine ignition was used for approximately thirty minutes.
2. After landing the ignition system was inspected IAW 2 AF TWX DN 4A-3738. The outboard ignition unit, P/N 10-94149-1A, figure 50, item 15, T C. 2J-J57-54, was found to be inoperative. Possible cause of failure is the extended use of ignition system beyond designed limits. This is a sealed unit and is beyond our capability of investigation.
3. Unit removed and replaced with like serviceable item.

ROUTING

K-FA
RDE
12A

HH
SERVICE
ANALYSIS
FILE

RCB
1/8

(OFFICE) *R.L. Simons*
SIGNATURE

4/8/9
DATE

22227
S-APUP

SHT 1 OF 1

BOEING AIRPLANE COMPANY
TRANSPORT DIVISION
FAILURE OR UNSATISFACTORY REPORT

MODEL K3SA SYSTEM IGNITION		0408 PART NO 313092		PART NAME PLUG-IGNITOR 2315	
MANUFACTURER PaW		BASF OR OPERATOR BERGSTROM BT		A.C. SERIAL -006 A.C. HOURS UNK	
77445		PART HOURS 59		DATE FAILED 4 20 9	
MAN HOURS REQ TO FIX AIRP CHECK ONE		EFFECT OF MALFUNCTION CHECK ONE		FLIGHT DEVIATION	
<input type="checkbox"/> 0-2 <input type="checkbox"/> 21-50 <input type="checkbox"/> 51-100 <input type="checkbox"/> 1-21 <input type="checkbox"/> 101-200 <input type="checkbox"/> 201-300 <input type="checkbox"/> 301-400 <input type="checkbox"/> 401-500 <input type="checkbox"/> 501-600		<input type="checkbox"/> NONE <input type="checkbox"/> FUEL BACK <input type="checkbox"/> ENGINE IN REMARKS <input type="checkbox"/> NEW <input type="checkbox"/> OVERhaul		<input type="checkbox"/> FLIGHT DEVIATION <input type="checkbox"/> FLEET ORDER OR SWAP <input type="checkbox"/> CAN'T LOCATE <input type="checkbox"/> FIRST OTHER <input type="checkbox"/> IN REMARKS	
LOCATION SKETCH CHECK LOCATION AND POSITION		POSITION		DISPOSITION	
		1 L OUT D 2 L IN D 3 R IN D 4 R OUT D 5 LEFT 6 RIGHT 7 UPPER 8 LOWER 9 FORE 0 AFT		6070 2075 10 18	
STATION 71 SECTION 71 POSITION 4		MALFUNCTION CODES		SAINTAINABILITY	
PART SERIAL NUMBER		CUSTOMER UR NO		OTHER REF.	
REF. CAT. NO.		4130 SW-59-170.			
FIG. NO.					
INDEX NO.					

REMARKS. Include background, symptoms, corrective action, recommendations, or sketch, length of delay or turnback

On postflight - found LH ignitor plug #4 engine cracked approx. 1/2 inch around upper flange. Operated 36 minutes on last flight.

EXTRACTED DIRECTLY FROM UR

1. Aircraft ignitor plugs being inspected during after flight inspection.
2. Inspection of plug from no. 4 combustion chamber on no. 4 engine was found cracked approximately one-half inch around upper flange. Ignitor plug operated for a total time of 36 minutes during last flight.
3. Defective plug removed and replaced with a like serviceable item.

ROUTING

WFC

RFE

WFA

MOH

IBM

HH

SERVICE ANALYSIS FILE

RLS

5/4

(OFFICE)

R.L. Simons.

SIGNATURE

5/4/9

DATE

23435

S. REF.

SHT 1 OF 1

\$4,7000

BOEING AIRPLANE COMPANY TRANSPORT DIVISION

FAILURE OR UNSATISFACTORY REPORT

MODEL K35A SYSTEM IGNITION		0408 PART NO 10-106700-1		PART NAME UNIT-IGNITION 1610	
FACTORY BENDIX 7820		BASE OR OPERATOR CASTLE C4		A/C SERIAL 1422 HOURS UNK DATE FAILED 4 28 9	
MAN HOURS REQ TO FIX AIRP CHECK UNK		PART HOURS SINCE UNK		REASON FOR MALFUNCTION CHECK ONE	
26 SEC OVER NO STATE NO IN REMARKS		35W OVERHAUL		<input type="checkbox"/> FLAME <input type="checkbox"/> LEAKAGE <input type="checkbox"/> REPAIR <input type="checkbox"/> BACK <input type="checkbox"/> LENGTH <input type="checkbox"/> CAN LUB <input type="checkbox"/> REPAIR <input type="checkbox"/> OTHER	
LOCATION SKETCH CHECK LOCATION AND POSITION		POSITION <input type="radio"/> 1 DUB D <input type="radio"/> 2 R IN D <input type="radio"/> 3 R O T S D <input type="radio"/> 4 EFT <input type="radio"/> 5 RIGHT <input type="radio"/> 6 UPPER <input type="radio"/> 7 LOWER <input type="radio"/> 8 FUSE <input type="radio"/> 9 AFT		DISPOSITION <input type="checkbox"/> 1 USED AS IS <input type="checkbox"/> 2 ASSEMBLED <input type="checkbox"/> 3 REPAIRED ON A/C <input type="checkbox"/> 4 REPAIRED LOCAL <input type="checkbox"/> 5 REPAIRED <input type="checkbox"/> 6 REPAIRED <input type="checkbox"/> 7 REPAIRED <input type="checkbox"/> 8 REPAIRED <input type="checkbox"/> 9 REPAIRED <input type="checkbox"/> 10 REPAIRED <input type="checkbox"/> 11 REPAIRED <input type="checkbox"/> 12 REPAIRED <input type="checkbox"/> 13 REPAIRED <input type="checkbox"/> 14 REPAIRED <input type="checkbox"/> 15 REPAIRED <input type="checkbox"/> 16 REPAIRED <input type="checkbox"/> 17 REPAIRED <input type="checkbox"/> 18 REPAIRED <input type="checkbox"/> 19 REPAIRED <input type="checkbox"/> 20 REPAIRED <input type="checkbox"/> 21 REPAIRED <input type="checkbox"/> 22 REPAIRED <input type="checkbox"/> 23 REPAIRED <input type="checkbox"/> 24 REPAIRED	
		STATION 71 SECTION 1		MALFUNCTION FOUND DURING 10 18 1. APPROX 10 18 2. APPROX 10 18 3. APPROX 10 18 4. APPROX 10 18 5. APPROX 10 18 6. APPROX 10 18 7. APPROX 10 18 8. APPROX 10 18 9. APPROX 10 18 10. APPROX 10 18 11. APPROX 10 18 12. APPROX 10 18 13. APPROX 10 18 14. APPROX 10 18 15. APPROX 10 18 16. APPROX 10 18 17. APPROX 10 18 18. APPROX 10 18 19. APPROX 10 18 20. APPROX 10 18 21. APPROX 10 18 22. APPROX 10 18 23. APPROX 10 18 24. APPROX 10 18	
PART SERIAL NUMBER 52998		REF CAT. NO. 93 RW-59-208		OTHER REF.	
FIG. NO. INDEX NO.		CUSTOMER UR NO		OTHER REF.	

REMARKS: Include background, symptoms, corrective action, recommendations, or sketch, length of delay or setback

In flight - #1 engine ignition circuit breaker tripped and could not be reset. On postflight - found ignition unit inoperative. Unknown internal failure.

EXTRACTED DIRECTLY FROM UR

1. In flight on routine training mission.
2. Observed that no. 1 engine ignition circuit breaker on switch D-C bus panel hand opened. A no. of attempts were made to reset the circuit breaker but it would not remain in the close position. After flight investigation by audible and visual check, revealed that right hand ignition unit failed to operate.
3. Replaced ignition unit and difficulty corrected.

ROUTING

GFE

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WED

(OFFICE)

R.L. Simons.

SIGNATURE

5/6/9

DATE

5-47 23440

SHT 1 OF 1

BOEING AIRPLANE COMPANY TRANSPORT DIVISION

FAILURE OR UNSATISFACTORY REPORT

K35A SYSTEM WATER INJECT		0411	PART NO 34E16-1-A	PART NAME WATER PUMP	2340
MANUFACTURER BENDIX		06848	BASE OR OVERHAUL CASTLE	A/C SERIAL 3645	A/C MODEL UNKN
DATE FAILED 1 7 9					
MAN HOURS REQ TO FIX AIRP CHECK ONE		PART HOURS SINCE 0		EFFECT OF MALFUNCTION CHECK ONE	
<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/> 10 <input type="checkbox"/> 11 <input type="checkbox"/> 12 <input type="checkbox"/> 13 <input type="checkbox"/> 14 <input type="checkbox"/> 15 <input type="checkbox"/> 16 <input type="checkbox"/> 17 <input type="checkbox"/> 18 <input type="checkbox"/> 19 <input type="checkbox"/> 20 <input type="checkbox"/> 21 <input type="checkbox"/> 22 <input type="checkbox"/> 23 <input type="checkbox"/> 24 <input type="checkbox"/> 25 <input type="checkbox"/> 26 <input type="checkbox"/> 27 <input type="checkbox"/> 28 <input type="checkbox"/> 29 <input type="checkbox"/> 30 <input type="checkbox"/> 31 <input type="checkbox"/> 32 <input type="checkbox"/> 33 <input type="checkbox"/> 34 <input type="checkbox"/> 35 <input type="checkbox"/> 36 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type="checkbox"/> 72 <input type="checkbox"/> 73 <input type="checkbox"/> 74 <input type="checkbox"/> 75 <input type="checkbox"/> 76 <input type="checkbox"/> 77 <input type="checkbox"/> 78 <input type="checkbox"/> 79 <input type="checkbox"/> 80 <input type="checkbox"/> 81 <input type="checkbox"/> 82 <input type="checkbox"/> 83 <input type="checkbox"/> 84 <input type="checkbox"/> 85 <input type="checkbox"/> 86 <input type="checkbox"/> 87 <input type="checkbox"/> 88 <input type="checkbox"/> 89 <input type="checkbox"/> 90 <input type="checkbox"/> 91 <input type="checkbox"/> 92 <input type="checkbox"/> 93 <input type="checkbox"/> 94 <input type="checkbox"/> 95 <input type="checkbox"/> 96 <input type="checkbox"/> 97 <input type="checkbox"/> 98 <input type="checkbox"/> 99 <input type="checkbox"/> 100		<input type="checkbox"/> NEW OVERHAUL <input type="checkbox"/> 0		<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/> 10 <input type="checkbox"/> 11 <input type="checkbox"/> 12 <input type="checkbox"/> 13 <input type="checkbox"/> 14 <input type="checkbox"/> 15 <input type="checkbox"/> 16 <input type="checkbox"/> 17 <input type="checkbox"/> 18 <input type="checkbox"/> 19 <input type="checkbox"/> 20 <input type="checkbox"/> 21 <input type="checkbox"/> 22 <input type="checkbox"/> 23 <input type="checkbox"/> 24 <input type="checkbox"/> 25 <input type="checkbox"/> 26 <input type="checkbox"/> 27 <input type="checkbox"/> 28 <input type="checkbox"/> 29 <input type="checkbox"/> 30 <input type="checkbox"/> 31 <input type="checkbox"/> 32 <input type="checkbox"/> 33 <input type="checkbox"/> 34 <input type="checkbox"/> 35 <input type="checkbox"/> 36 <input type="checkbox"/> 37 <input type="checkbox"/> 38 <input type="checkbox"/> 39 <input type="checkbox"/> 40 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LOCATION SKETCH - CHECK LOCATION AND POSITION - 09		POSITION		HOW FAILED	
		1 L INB D 2 L INB D 3 R INB D 4 R INB D 5 LIFT 6 RIGHT 7 UPPER 8 LOWER 9 FORE 0 AFT		6070 CRACKED (IMPELLER HOUSING) WHY FAILED 8 UNKNOWN	
STATION SECTION 71 OR POSITION 3		MALFUNCTIONS REPORTED DURING		DISPOSITION	
		1 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		09 18 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100	
PART SERIAL NUMBER 514 U		REF. CAT. NO. - 10 FIG. NO. 4-24 INDEX NO. 90		CUSTOMER USE NO. CAFB 938W-54-8	
OTHER REF. 708-53464					

REMARKS Include background, symptoms, corrective action, recommendations, or sketch; length of delay or turnback

ROUTING

10-FF-
 DEP
 CRT
 RUK
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 C-
 WEM
 RM
 10-
 RLS

On postflight - #3 engine water pump impeller housing was found cracked 270 degrees around the circumference.

Cause - unknown
EXTRACTED DIRECTLY FROM UR

1. Afterflight inspection following 8 hours flight and wet take-off during which water injection appeared to function normally.
2. Water pump impeller housing. The crack extended approximately 270° around the circumference.
3. Exhibit parts being replaced.

HH
 SERVICE
 ANALYSIS
 FILE

(OFFICE)

SIGNATURE K O Hengler

1/14/9

DATE

21648

SHT 1 OF 1

BOEING AIRPLANE COMPANY TRANSPORT DIVISION FAILURE OR UNSATISFACTORY REPORT

K35A		SYSTEM WATER INJECT		0411		PART NO TT 113600-1		PART NAME WATER PUMP		2340	
MANUFACTURER THOMPSON		59875		BASE OR OPERATOR LORING		A/C SERIAL 61		A/C HOURS 3606		DATE FAILED N 10 8	
MAN HOURS REQ TO FIX AIRP CHECK ONE		250 500		PART HOURS SINCE 234		EFFECT ON MAINTENANCE CHE K ONE		FLIGHT DEVIATION		EJECT ODD OR SING	
1 0-1 2 1-5 3 2-1 4 2-1 5 2-1 6 2-1 7 2-1 8 2-1 9 2-1 10 2-1 11 2-1 12 2-1 13 2-1 14 2-1 15 2-1 16 2-1 17 2-1 18 2-1 19 2-1 20 2-1 21 2-1 22 2-1 23 2-1 24 2-1 25 2-1 26 2-1 27 2-1 28 2-1 29 2-1 30 2-1 31 2-1 32 2-1 33 2-1 34 2-1 35 2-1 36 2-1 37 2-1 38 2-1 39 2-1 40 2-1 41 2-1 42 2-1 43 2-1 44 2-1 45 2-1 46 2-1 47 2-1 48 2-1 49 2-1 50 2-1 51 2-1 52 2-1 53 2-1 54 2-1 55 2-1 56 2-1 57 2-1 58 2-1 59 2-1 60 2-1 61 2-1 62 2-1 63 2-1 64 2-1 65 2-1 66 2-1 67 2-1 68 2-1 69 2-1 70 2-1 71 2-1 72 2-1 73 2-1 74 2-1 75 2-1 76 2-1 77 2-1 78 2-1 79 2-1 80 2-1 81 2-1 82 2-1 83 2-1 84 2-1 85 2-1 86 2-1 87 2-1 88 2-1 89 2-1 90 2-1 91 2-1 92 2-1 93 2-1 94 2-1 95 2-1 96 2-1 97 2-1 98 2-1 99 2-1 100 2-1		250 500		PART HOURS SINCE 234		EFFECT ON MAINTENANCE CHE K ONE		FLIGHT DEVIATION		EJECT ODD OR SING	
LOCATION SKETCH CHECK LOCATION AND POSITION		POSITION		HOW FAILED		WHY FAILED		DISPOSITION		OTHER	
		POSITION		HOW FAILED		WHY FAILED		DISPOSITION		OTHER	
SECTION 71 POSITION -		HOW FAILED		WHY FAILED		DISPOSITION		OTHER		OTHER	
PART SERIAL NUMBER PP-830 A		REF CAT NO -10		FIG NO. 4-24		INDEX NO. 90		CUSTOMER UR NO. LAFB		OTHER REF.	
PP-830 A		REF CAT NO -10		FIG NO. 4-24		INDEX NO. 90		CUSTOMER UR NO. LAFB		OTHER REF.	
PP-830 A		REF CAT NO -10		FIG NO. 4-24		INDEX NO. 90		CUSTOMER UR NO. LAFB		OTHER REF.	

REMARKS: Include background, symptoms, corrective action, recommendations, or sketch; length of delay or turnback.

ROUTING

WFO

REP

CR

RWR

RT

RDF

WFO

DMS

BSN

On postflight - the water pump blades were noted binding.

Cause - bearing failure
EXTRACTED DIRECTLY FROM CR

1. Aircraft undergoing postflight inspection.
2. Pump blades hard to move and blades binding.
3. Bearing failure.
4. Removed and replaced with serviceable pump. Defective item turned into supply for disposition and repair.
5. Manufacturer be advised and necessary action be taken to preclude future failures.

HH
SERVICE
ANALYSIS
FILE

WCS
12/23

(OFFICE)

SIGNATURE KO Hengler

DATE

SHT 1 OF 1

24514

12/23/3

AIR SHUTOFF

REMARKS. Include background, symptoms, corrective action, recommendations, or sketch, length of delay or turnback.

During routine check - #3 engine air shut-off valve failed to operate.

Cause - bad electrical connection.

EXTRACTED DIRECTLY FROM UR

1. Routine water injection check.
2. During routine water injection check, valve part no 1650-628-2988 on no. 3 engine failed to operate.
3. Electrical connection bad, valve would not open.
4. Valve removed and replaced with like serviceable item. Defective item being held for disposition instructions.
5. Recommend a teardown and study be made of item to determine cause of failure.

(OFFICE)

SIGNATURE *K. O. Fenzler*

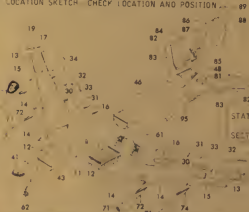
DATE _____

S-~~AF~~UP 24411

SHT 1 OF 1

BOEING AIRPLANE COMPANY TRANSPORT DIVISION

FAILURE OR UNSATISFACTORY REPORT

MODEL K33A	SYSTEM STARTER	PART NO 0407	PART NAME COMPRESSOR	
ACTUATOR CORNELIUS	BASE OR OPERATOR CHESWICK	A/C SERIAL 130R2101-1-5	A/C HOURS 0640	
MAN HOURS REQ 14650	PART HOURS SINCE 148	DATE FAILED 6 19 9		
OR AIRCRAFT CHECK ONE	NEW OVERHAUL	EFFECT OF MALFUNCTION CHECK ONE		
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		1 NONE 2 OILY 3 UNUSABLE 4 LENGTHY 5 FLIGHT DEVIATION 6 ACCEL 7 IN TEST 8 LECT 9 OOH 10 DR 11 RE 12 REASON IN REMARKS		
LOCATION SKETCH CHECK LOCATION AND POSITION	STATION	DISPOSITION		
	SECTION 74	1 USED AS IS 2 REPAIRED ON AIR 3 REPAIRED LATER 4 REPAIRED 5 REPAIRED 6 REPAIRED 7 REPAIRED 8 REPAIRED 9 REPAIRED 10 REPAIRED 11 REPAIRED 12 REPAIRED 13 REPAIRED 14 REPAIRED 15 REPAIRED 16 REPAIRED 17 REPAIRED 18 REPAIRED 19 REPAIRED 20 REPAIRED 21 REPAIRED 22 REPAIRED 23 REPAIRED 24 REPAIRED 25 REPAIRED 26 REPAIRED 27 REPAIRED 28 REPAIRED 29 REPAIRED 30 REPAIRED 31 REPAIRED 32 REPAIRED 33 REPAIRED 34 REPAIRED 35 REPAIRED 36 REPAIRED 37 REPAIRED 38 REPAIRED 39 REPAIRED 40 REPAIRED 41 REPAIRED 42 REPAIRED 43 REPAIRED 44 REPAIRED 45 REPAIRED 46 REPAIRED 47 REPAIRED 48 REPAIRED 49 REPAIRED 50 REPAIRED 51 REPAIRED 52 REPAIRED 53 REPAIRED 54 REPAIRED 55 REPAIRED 56 REPAIRED 57 REPAIRED 58 REPAIRED 59 REPAIRED 60 REPAIRED 61 REPAIRED 62 REPAIRED 63 REPAIRED 64 REPAIRED 65 REPAIRED 66 REPAIRED 67 REPAIRED 68 REPAIRED 69 REPAIRED 70 REPAIRED 71 REPAIRED 72 REPAIRED 73 REPAIRED 74 REPAIRED 75 REPAIRED 76 REPAIRED 77 REPAIRED 78 REPAIRED 79 REPAIRED 80 REPAIRED 81 REPAIRED 82 REPAIRED 83 REPAIRED 84 REPAIRED 85 REPAIRED 86 REPAIRED 87 REPAIRED 88 REPAIRED 89 REPAIRED 90 REPAIRED 91 REPAIRED 92 REPAIRED 93 REPAIRED 94 REPAIRED 95 REPAIRED 96 REPAIRED 97 REPAIRED 98 REPAIRED 99 REPAIRED 100		
PART SERIAL NUMBER 130-21728	REF CAT NO 1C-35(K)A-7	CUSTOMER USE NO 78W 59-226	OTHER REF.	
FIG NO 112	INDEX NO 25			

REMARKS: Include background, symptoms, corrective action, recommendations, or sketch, length of delay or turnback.

ROUTING

WIBK

RGFG

RDE

WEP

MSH

IBM

HA

SERVICE ANALYSIS FILE

ALS

6/30

DURING POSTFLIGHT INSPECTION **C/B** FOUND TRAPPED - RESET, AND TRAPPED AGAIN. OIL FOUND DIS-COLORED TO A DARK BROWN. SUSPECT OIL STARVATION OR OVERHEAT. OIL QUANTITY LEVEL CHECK O.K. EXTRACTED DIRECTLY FROM UR

1. On postflight inspection the circuit breakers on the fuel air starter compressor were out.
2. The circuit breakers were reset and they popped again. Upon inspection the compressor was found to be frozen up. The oil quantity was checked and found to be fully serviced. The oil was lubricated to a dark brown. The oil was checked prior to flight, the color was normal.
3. Cause of malfunction, possible, oil starvation or excessive heat caused the malfunction.
4. Compressor was replaced with serviceable compressor, system was checked and operated normal. The defective compressor was turned into regular supply channels for repair.
5. Recommend that test be run on the lubricating system on the compressors to determine if the lubrication is at fault.

(OFFICE)

SIGNATURE **D.H. Wilson**

DATE **6/30/9**

SADUP **19279**

SHT 1 OF 1

5HT 1 OF 1

W/1 INLET

REMARKS. Include background, symptoms, corrective action, recommendations, or sketch; length of delay or turnback.

During postflight - found W1 injection control assy
on #3 engine with an upper mounting flange
broken below the mounting holes.

1. Aircraft was undergoing a routine postflight inspection.
2. During the postflight inspection it was discovered that the upper mounting flange was broken below the mounting hole of no. 3 engine's water injection control valve.
3. Overtorque of mount bolt, misalignment, or engine heat expansion.
4. Broken control assembly was removed and replaced with a like serviceable item. Broken item held as UR exhibit.
5. A possible change in the torque requirement table for the upper mounting flange or manufacture control out of better material.
6. Copy of this UR to be forwarded to AFPRC, BAC, Seattle 14, Washington.

(OFFICE)

SIGNATURE KO Hengler

DATE _____

S-AF-UP 21444

SHT 1 OF 1

W/1 PUMP

REMARKS: Include background, symptoms, corrective action, recommendations, or sketch, length of delay or turnback.

Operation "quick switch" - water injection pumps bracket was found cracked upon removal of water pump.

Cause - unknown
EXTRACTED DIRECTLY FROM UR

1. Engine received in shops for Project Quick Switch.
2. When water pump was removed, it was noted that subject Support Bracket, P/N 69-8900, was cracked. (See enclosed Photo Wr 264OF).
3. Unknown. This bracket is a replacement for bracket that had failed previously, and was manufactured as a stronger replacement for 56 series. KC-135 Acft.
4. replaced with like serviceable item.
5. Recommend that an investigation be conducted to determine if this is an isolated case, or failures are still being encountered.

(OFFICE)

SIGNATURE KO KENZLER

2/4/9

S-FAIP 21436

SHT 1 OF 1

BOEING AIRPLANE COMPANY TRANSPORT DIVISION

FAILURE OR UNSATISFACTORY REPORT

AIR FRONT TUBE

ENGINE		SYSTEM		K35A		ANTI-ICE	
MANUFACTURER		PRATWHIT		77445		0410	
BASE OR OPERATOR		CARSWELL		29		PART NO. 182213	
PART HOURS (MILE)		116		A/C SERIAL 1466		A/C HOURS UNKN	
OVERHEAT IN REMARKS		6040		GASKET		1360	
LOCATION SKETCH—CHECK LOCATION AND POSITION		STATION		SECTION 71		POSITION 1	
PART SERIAL NUMBER		REF. CAT. NO. 2J-J57-54		CUSTOMER USE NO. CRAFB		OTHER PTF.	
FIG. NO. 66		INDEX NO. 4		7BW-58-222			

REMARKS: Include background, symptoms, corrective action, recommendations, or sketch, length of delay or turnback.

ROUTING
WFF
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CRT
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RT
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DRG
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IBM
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SERVICE ANALYSIS FILE

On postflight - the anti-icing air front tube gaskets on engines #1 and #3 were found blown.

Cause - Excessive heat and pressure.

EXTRACTED DIRECTLY FROM UR

1. 100 hour postflight inspection was in progress.
2. During the inspection of the number three and number one engines, the following anti-icing gaskets were found blown:
 - a. 6245-2840-041-7370, left and right side.
 - b. 6245-2840-041-0910, left and right side.
3. Excessive heat and pressure.
4. Removed blown gaskets and replaced them with serviceable like item.
5. Use more durable materials.

SIGNATURE KO Kugler

DATE

SHEET 1 OF 1

(OFFICE)

12/2/3

S.F. 24520

BUTTERFLY AIR

ENGINE

REMARKS: Include background, symptoms, corrective action, recommendations, or sketch, length of delay or turnback.

SHT 1 OF 1

BOEING AIRPLANE COMPANY
TRANSPORT DIVISION

FAILURE OR UNSATISFACTORY REPORT

K35A FUEA & POWER		SYSTEM 0405		PART NO 330 290		PART NAME FUEL CENTRAL		06880	
ACTUATOR		BENDIX		CUNTON-SHERMAN IC		A C SERIAL -040		A C HOURS UNK	
DATE - 11-1-50		TIME - 10:30		STATE - OK		DATE - 11-1-50		TIME - 6:30	
MAN HOURS REQ TO FIX AIRP UNCK ONE		2 1/2		OVER 500		FUEL TOLERANCE		06880	
HOURS 1 2 3 4 5 6 7 8 9 10 11 12		1 2 3 4 5 6 7 8 9 10 11 12		1 2 3 4 5 6 7 8 9 10 11 12		1 2 3 4 5 6 7 8 9 10 11 12		1 2 3 4 5 6 7 8 9 10 11 12	
UNCK		UNCK		UNCK		UNCK		UNCK	
LOCATION SKETCH - CHECK LOCATION AND POSITION		STATION 71		SECTION 71		POSITION 1		POSITION 1	
PART SERIAL NUMBER		REF CAT. NO.		CUSTOMER NO.		OTHER REF.		DATE - 11-1-50	
181838		FIG. NO.		4123 SW 59-148				TIME - 6:30	
INDEX NO.								TIME - 6:30	

REMARKS. Include background, symptoms, corrective action, recommendations, or sketch, length of delay or turnback.

ROUTING

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SERVICE ANALYSIS FILE

WHILE ENTERING TRAFFIC PATTERN NO. 1 ENG.
QUIT. GROUND CHECK REVEALED ENG. O.K. UP TO
85% - THEN WOULD SHUT ITSELF DOWN.

SUSPECT FAILURE OF PT4 SENSING SYSTEM.
EXTRACTED DIRECTLY FROM UR

1. ACFT was entering traffic pattern after completion of flight.
2. Pilot reported that the no 1 engine failed in pattern. Loss of EPR, RPN, oil pressure, and fuel flow. Ground run revealed that engine operation was CK to eight-five percent, at that point the engine shut itself down.
3. The AJ4A fuel control, S/N 181838 was replaced with a like SVC item. Engine checked out CK with new AJ4A.

D. H. Wilson
SIGNATURE

(OFFICE)

DATE 6/18/96

S. AF UP 19216

SHT 1 OF 1

BOEING AIRPLANE COMPANY
TRANSPORT DIVISION
FAILURE OR UNSATISFACTORY REPORT

MODEL K3SA SYSTEM IGNITION		0408		PART NO. 10-106700-1		PART NAME UNIT-IGNITION		11610	
MANUFACTURER BENDIX		77820		OFFT		A/C SERIAL 01		DATE FAILED 4 28 9	
MAN HOURS REL TO FIX AIRP UNKN		CHECK ONE		PART HOURS SINCE 73		EFFECT OF MALFUNCTION (CHECK ONE)		FLIGHT DEVIATION	
<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/> 10 <input type="checkbox"/> 11 <input type="checkbox"/> 12 <input type="checkbox"/> 13 <input type="checkbox"/> 14 <input type="checkbox"/> 15 <input type="checkbox"/> 16 <input type="checkbox"/> 17 <input type="checkbox"/> 18 <input type="checkbox"/> 19 <input type="checkbox"/> 20 <input type="checkbox"/> 21 <input type="checkbox"/> 22 <input type="checkbox"/> 23 <input type="checkbox"/> 24 <input type="checkbox"/> 25 <input type="checkbox"/> 26 <input type="checkbox"/> 27 <input type="checkbox"/> 28 <input type="checkbox"/> 29 <input type="checkbox"/> 30		<input type="checkbox"/> NEW <input type="checkbox"/> OVERHAUL		<input type="checkbox"/> NONE <input type="checkbox"/> DELAY <input type="checkbox"/> TURNBACK		<input type="checkbox"/> LENGTHEN <input type="checkbox"/> REMARKS		<input type="checkbox"/> FLIGHT DEVIATION <input type="checkbox"/> CAUSE <input type="checkbox"/> INCIDENT	
LOCATION SKETCH		CHECK LOCATION AND POSITION		POSITION		HOW FAILED		DISPOSITION	
		SECTION 11 OR POSITION		MALFUNCTION OCCURRED DURING 18		MY FAILED DESIGN FACTOR		USED AS IS REPAIRED ON A/C REPAIRED LOCALLY NON REPAIRABLE REPLACED REPLACED OLD PT. CRAPPER REPAIRED RET. TO REPAIRER FIELD FOR U. EXHIBIT OTHER	
PART SERIAL NUMBER 43101		REF. CAT. NO.		CUSTOMER UR NO. 3902 ARBW-59-71.		OTHER REF.		REPORT SUBMITTED FOR RECORD/INFO ROUTINE ACTION URGENT ACTION SAFETY OF FLIGHT	
FIG. NO.		INDEX NO.							

REMARKS. Include background, symptoms, corrective action, recommendations, or sketch, length of delay or turnback.

ROUTING

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SERVICE
ANALYSIS
FILE

RLS
5/4

*On postflight - found one ignition unit inoperative.
 Ignition was 'ON' for 20 minutes on last flight.*

EXTRACTED DIRECTLY FROM UR

1. Ignition unit was used twenty minutes inflight.
2. Unit was ground checked after flight and found defective.
3. Removed and replaced with serviceable like item.

(OFFICE) *RLS*
 SIGNATURE

5/4/9
 DATE

23436
 S-4 UP
 SHT 1 OF 1

[illegible]

REMARKS: Include background, symptoms, corrective action, recommendations, or sketch, length of on-ay or turnback.

On starting attempt - F/A starter was 'inoperative'. Found pins A, B and C of burner pressure switch shorted together. Failure caused a ground abort of a scheduled mission.

EXTRACTED DIRECTLY FROM UR

1. ACFT scheduled for 1730 take-off 1 headstart roman 2, mission. Unable to start no. 4 engine due to starter being inoperative. ACFT aborted.

2. Inspection of starter revealed that the burner pressure switch P/N 733B377P1 had shorted so that continuity was obtained between all pins in the cannon plug.

3. Defective starter replaced with a Hamilton Standard starter Stock No. 2995-633-4827. Defective starter will be repaired locally and returned to service as soon as necessary parts are received.

ROUTING

GF
RDF
IBM

HH
--SERVICE
ANALYSIS
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RLS
5/5

(OFFICE) R.L. Simons.
SIGNATURE

5/5/9
DATE

S. KF. UP 23437
SHT 1 OF 1

ON
F/A

REMARKS: Include background, symptoms, corrective action, recommendations, or sketch, length of delay or turnback

EXTRACTED DIRECTLY FROM US

- HH
SERVICE
ANALYSIS
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101.5
- 12

R. L. Simons.
SIGNATURE

4/2/9
DATE

S-AF-UP 22225
SHT 1 OF 1

BOEING AIRPLANE COMPANY TRANSPORT DIVISION

FAILURE OR UNSATISFACTORY REPORT

MODEL **K35A** SYSTEM **ENG. START** 0407 PART NO. **840 891** AIR **Bottle**
 ALTITUDE **KIDDE** 83612 BASE OR OPERATOR **CASTLE** C4 A/C SERIAL **50** A/C HOURS **50** PART NAME **VALVE** 3400
 VAN HOURS REG TO FIX APP. CHECK ONE: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
 UNK
 LOCATION SKETCH - CHECK LOCATION AND POSITION: 89 POSITION
 1. UNB D
 2. UNB D
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 STATION **71** OR POSITION **Y**
 SECTION **71** OR POSITION **Y**
 PART SERIAL NUMBER **986** REF. CAT. NO. **93 BW-59-283** CUSTOMER UR NO. **93 BW-59-283** OTHER REF. **FSK**
 FIG. NO. **93 BW-59-283** INOEX NO. **93 BW-59-283** TWX-065-111T
 REMARKS: Include background, symptoms, corrective action, recommendations, or sketch, length of delay or turnback.

ROUTING

FC
 SDF
 IBM

HH
 SERVICE
 ANALYSIS
 FILE

RLS
 6/24

DURING ATTEMPTED START ON No. 4 ENG. UNABLE TO
 TO OBTAIN AIR TO FUEL AIR STARTER. SUSPECT
 INTERNAL FAILURE OF VALVE ASSY. PREVENTING
 FLOW OF AIR FROM STORAGE BOTTLE TO STARTER
 ASSY.
 EXTRACTED DIRECTLY FROM UR

1. Attempted to start no. 4 engine in preparation for routine training mission.
2. Unable to obtain air to fuel air starter.
3. Valve assembly replaced and operationally checked satisfactorily.

D.H. Wilson
 SIGNATURE

DATE 6/23/9

S. REFUP 19191
 SHT 1 OF 1

MA

ROUTING
BFC
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WESTIN STC
MIC
IBM
HH
SERVICE ANALYSIS FILE

1. System operated normally on last flight. On the next preflight a start was attempted on No. 4 engine and engine failed to start.
2. Further inspection revealed starter would cut out at 8 per cent.
3. Defective starter was removed and replaced with a serviceable starter cannibalized from AC-133, ACFT 59-1444, subject aircraft starter operated satisfactory.

RLS

D. H. Wilson
SIGNATURE

DATE 6/18/6

S. AF UP 19217
SHT 1 OF 1

FAILURE OR UNSATISFACTORY REPORT

REMARKS: Include background, symptoms, corrective action, recommendations, or sketch, length of delay or turnback.

On starting - #1 engine starter failed to rotate.

Cause - unknown; U.R. suspects failure of centrifugal switch.

EXTRACTED DIRECTLY FROM U.R.

1. Normal starting of no. 1 engine.
2. No. 1 engine failed to rotate.
3. Suspected centrifugal switches are not operating.
4. Removed and replaced with like serviceable item. Defective item turned into supply for disposition and repair.
5. Recommend manufacturer be advised of this condition and corrective action be taken as necessary.

(OFFICE)

SIGNATURE KO Hengler

DATE _____

SHT 1 OF 1



FAILURE OR UNSATISFACTORY REPORT

AIR BOTTLE

REMARKS: Include background, symptoms, corrective action, recommendations, or sketch; length of delay or turnback

Cause - unknown
EXTRACTED DIRECTLY FROM UR

1. Routine preflight.
2. Air bottle would not hold air.
3. Valve assy. Part #1450-511-5286 was found to be leaking air.
4. Removed and replaced with serviceable item. Defective item turned into supply for disposition.
5. Manufacturer be advised of this condition and necessary action be taken.

HA
SERVICE
ANALYSIS
FILE

✓ RLS
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(OFFICE)

SIGNATURE KO Henzler

1/9/9

S-AFUP 24534

SHT 1 OF 1

BOEING AIRPLANE COMPANY TRANSPORT DIVISION

FAILURE OR UNSATISFACTORY REPORT

K35A		SYSTEM		STARTER		0407		PART NO.		840891		PART NAME		AIR BOTTLE	
W KIDDE		33525		BASE DR OPERATOR		LORING		61		A/C SERIAL		3595		A/C HOURS	
VALVE		3400		DATE FAILED		UNKN		N 7.8		FLIGHT DEVIATION		CANCELED		ACCIDENT	
MAN HOURS REQ TO FIX AIRP (CHECK ONE)		24-50		20-50		250-500		OVER 500		STATE NO		100-250		REMARKS	
LOCATION SKETCH - CHECK LOCATION AND POSITION		POSITION		HOW FAILED		4155		DISPOSITION		USED AS IS		ADJUSTED		REPAIRED ON A/C	
SECTION 71		POSITION 4		WHY FAILED		8		REPAIRED LOCALLY		NON REPAIRABLE		REPLD IN DPT		SCRAPPED	
STATION		SECTION 71		WHY FAILED		8		REPLD RET TO DEPOT MFR		HELD FOR UR EXHIBIT		OTHER		OTHER	
FUNCTION FOUND DURING		19		MAINTAINABILITY		NO COMMENT		INTERCHANGEABLE		POOR		INACCESSIBLE		FREQUENT TROUBLE	
FUNCTION FOUND DURING		19		NO FAILURES		THIS RPT		COVERS		RECORD/INFO		ROUTINE ACTION		URGENT ACTION	
FUNCTION FOUND DURING		19		OTHER REF		42BW-58-2259		SAFETY OF FLIGHT		SAFETY OF FLIGHT		SAFETY OF FLIGHT		SAFETY OF FLIGHT	

REMARKS. Include background, symptoms, corrective action, recommendations, or sketch, length of delay or turnback.

ROUTING
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SERVICE ANALYSIS FILE

During 2nd periodic - the air bottle valve failed to relieve excessive pressures and also failed to allow air to pass from the bottle to the starter.

EXTRACTED DIRECTLY FROM UR

1. Aircraft was undergoing second periodic when failure occurred.
2. Valve would allow too much pressure to enter the bottle.
3. Check valve failed to allow air from bottle to the starter.
4. Removed and replaced with like serviceable item. Item being held for UR exhibit.
5. Recommend a tear down and study to determine cause of malfunction.

(OFFICE)

SIGNATURE KO Hnzler

DATE

SHT 1 OF 1

12/12/8

24425

NS

FILE 0407

SEATTLE WICHITA ☐

1st REPORT.

CLASSIFIED ☐

UNCLASSIFIED 

CARTRIDGE STARTERS.

On the above date the OES reported to Major General John P. Ryan, Director of Material, SAC Headquarters on the Airesearch and Sunstreak and cartridge starters. Highlights of this report are the following:

On February 24, 1959 representatives of Airesearch and Sunstrand arrived at Castle to demonstrate their cartridge starters. A B-52F power pack without the alternator drive and a KC-135 # 4 position power pack without the fuel-air starter and air bottle were selected for the evaluation of the starter compatibility on built-up engines. Both starters fit easily in the # 4 engine of the KC-135. However, neither starter will fit within the available envelope of the B-52F power pack without changing the existing location of the water injection pump supply line, motor operated drain valve, # 15 fire detector and right air exit duct support for the oil cooler. The Airesearch starter also will require changes to the air exit duct of the oil cooler. The Sunstrand unit can be mounted if the above mentioned items are relocated and if the starter exhaust shroud is recountered. The Sunstrand representatives stated that reshaping of the exhaust shroud of the starter imposes no problem. At this point little consideration has been given to the starter exhaust and low pressure air inlet port locations. This will be further investigated.

On February 25, 1959 functional demonstration of both starters were made on a bare -43W engine. Two cartridge starts and two pneumatic starts from the MA-1 air cart were made with the Airesearch unit. Engine idle rpm was obtained within an average 30 seconds on the cartridge starts and an average of 55 seconds on the pneumatic starts. The Airesearch starter cannot be started through the aircraft pneumatic system in its present configuration because the pneumatic inlet port also functions as the exhaust port when the starter ~~will~~ is operated with a cartridge.

Two cartridge starts were attempted and two air starts were made on the Sunstrand unit. Engine idle rpm was obtained at 30 seconds utilizing the cartridge and at an average of 43 seconds on the pneumatic starts. The first attempt to start the engine with the cartridge was aborted due to an external fire at the breach-to-nozzle transfer tube. This was attributed to an oil saturated heat shield on the transfer tube; however, this was associated with special instrumentation and was not a result of a starter malfunction. The second try using the cartridge was partially successful in that engine idle rpm was obtained in 30 seconds, immediately followed by flames emitting from the starter fan intake. The Sunstrand representatives stated

NAME Paul Ribandy
STATION Castle AFB
SUBJECT OES Report to
REFERENCES None

REPORT NO. CAFB-OES-635F DATE February 27, 1959
LOCATION Merced, California
and February 27, 1959 MODEL -
ENCLOSURES 1

Page 1 of 2

BAC 1264-B2

FSR

FSR

FSR

FSR

ESR

ESR

ESB

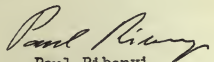
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SUPPLEMENTARY SHEET

that this condition was attributed to the combination of excessive clearances between the starter turbine wheel and flow separator and afterburning of the cartridge and could be easily rectified.

The OES has requested authorization to install and fly the Airesearch and Sunstrand cartridge starters on two KC-135 aircraft assigned to this base. Both starters will be capable of operating with the cartridge or through a quick disconnect directly to an air cart. To accelerate the testing no attempt will be made to connect the starters to the pneumatic manifold. No aircraft will be flown until installation approval is obtained from WADC and Boeing has coordinated on the installation.

The Airesearch cartridge starter appears airworthy and is being qualified by WADC. In addition this unit is installed on the F-105 aircraft and is a production item. The Sunstrand unit is still in the prototype stage, therefore, qualification by WADC has not been initiated.


Paul Ribanyi

REPORT **CAFB-OES-635**
SHT. 2 OF 2

1. Cleaning.
2. Drying.
3. Hardening.
4. Shaping.
5. Hardening.
6. Drying.
7. Spraying (BR).
8. Plating.
9. Polishing.
10. Lacquer spray.
11. Mounting.
- 12.

U.S. AIR FORCE
BOEING SEATTLE, WASH.

JAN 10 9 25 PM '61

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RJWFNK/OCAMA TINKER AFB OKLA

INFO RJWFNH/SAAMA KELLY AFB TEX

RJWXBRB/SAC OFFUTT AFB NEBR

RJWZDMB/AFPR BOEING SEATTLE WASH

RJEDSQ/AMC WPAFB OHIO

RJWZNF/OTIG NORTON AFB CALIF

RJEBKF/2AF BARKSDALE AFB LA

RJEXDHB/8AF WESTOVER AFB MASS

RJWBKN/15 AF MARCH AFB CALIF

NAVY GRNC

BT

UNCLAS SANTSK-174446 FOR 4228SW/D/M/ME/DCM,OCAMA/OCMQ. INFO SANTSA,
SANTRE, SANEP, SANSIA, SAC/DMA, AFPR/OORSTE, AMC/MCMT, OTIG/AFCD1-3-2,
OCAMA/OCNSP, AFS/DMAA SUBJECT: TDR 61-2002 EUR 4228SW 61-1 DTD 7 JAN
61. THIS MESSAGE IN THREE PARTS. PART ONE FOR 4228SW. SUBJECT UR HAS
BEEN DOWNGRADED AND ASSIGNED TDR 61-2002. REQUEST ENGINE J57-59W
S/N P631481 REMOVED FROM KC135 S/N 58-713 BE FORWARDED OCAMA FOR PRIORIT
II TDR. SAAMA SHIPPING ORDER OD 2050-2840-61-0009-7040 IS ASSIGNED.
ADVISE AF ENGINEERING SUPPORT OFFICE, SANTSK, PRATT & WHITNEY AIRCRAFT,
EAST HARTFORD, CONN; SAAMA, ATTN: SANTSA, SANTRE; AND OCAMA ATTN:

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RECEIVED
TRANSPORT DIV.
ENGINEERING DEPT.
JAN 17 2 12 PM '61

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366

PAGE TWO RBEGUP 010

OCAMA. REQUEST PRIORITY II TDR BE ACCOMPLISHED ON J57-59W S/N P631481
ENGINE. ENGINE IS EXHIBIT ON UR 4228SW 61-1 ASSIGNED TDR 61-2002.
REQUEST TDR BE PERFORMED TO DETERMINE CASE OF FAILURE. AT 3000 FT
FELT SLIGHT INDICATION OF OIL FUMES IN CABIN BUT QUICKLY DISSIPATED.
AT 10,000 FT NR. 1 ENGINE OIL PRESSURE DROPPED TO 10 PSI AND LOSS OF
POWER EXPERIENCED. ENGINE SHUT DOWN AND MISSION ABORTED. GROUND
INSPECTION REVEALED PIECE OF OPAH FRONT COVER ^{Oil Pumps & Accessory Housing} BETWEEN TACH GEN PAD
AND STARTER PAD MISSING. N1 AND N2 COMPRESSORS SEIZED. BEARINGS IN
OPAH AND ENGINE FAILED FOR LACK OF LUBRICATION. NO INTERNAL FAILURE
OR CONTACT OF PARTS WITH OPAH COVER. PROJECT NR TDR-NTSK-61-2002
HAS BEEN ASSIGNED AND SHOULD BE ENTERED IN THE UPPER RIGHT HAND PORTION
OF AMC FORM 399. FORWARD THREE COPIES OF COMPLETED FORM TO AF ENGINEERING
SUPPORT OFFICE, SANTSK, PRATT & WHITNEY AIRCRAFT, EAST HARTFORD, CONN.,
WITH MASTER COPY OF 399 TO SAAMA, ATTN: SANSIA. PART III FOR SANTRE.
THIS ADVISES USE OF SHIPPING ORDER NR PD-2050-2840-61-0009-7040 ON
TDR PROJECT NTSK-61-2002 ABOVE.

BT

10/1500Z JAN RBEGUP

JAN 23 1961

NNNNCZCRGA212ZCWWD545

RR RJWFKG

DE RQWFK 173A

R M 112010Z ZEX

~~OCANA TIKER AFB OKLA~~

TO RJESBA/MOAMA BROOKLEY AFB ALA

INFO RJESPR/4228STRATWG COLUMBUS AFB MISS

RJWFKG/AFPR BOEING AIRPLANE CO WICHITA KANS

RJWFKG/SAAMA KELLY AFB TEX

RJWZNE/OTIS NORTON AFB CALIF

RJWZGP/922BOMWG FAIRCHILD AFB WASH

RJEZFH/45AD LORING AFB NE

RJWFAP/821 AD ELLSWORTH AFB SDAY

RJESSL/4138STRATWG TURNER AFB GA

BT

UNCLAS OCNSIE-5645 FOR CONSI MOAMA AFCD1-3-2 CTIG SANRT SAAMA DMAA
2AF DCMQC 4228STRATWG. THE FOLLOWING COMMODITY PROBLEM EUR FM 4228SV

COLUMBUS AFB MISS IS RETRANSMITTED FOR YOUR ACTION AND DIRECT

REPLY TO SUBMITTING ACTIVITY WITH INFO OF REPLY TO OCANA

/OCNSIE/. QUOTE UNCLAS TO OC 132 IMMEDIATE ACTION FOR AFPR AND

SAC/DMA. INFO FOR OCANA /CONSI OTIS AFCD1-3-2 SAAMA/4

1-45

2AF/DMAA ALL AF BY ADVISORY AND PIR CONTROL 0-52 BASES. SUBJECT

EMERGENCY A. SPECIAL HANDLING REQUIRED INW TO 00-35D-54 A. 4228SV

60-105 B. AIR START CONTROL VALVE CLAS 2995 C. 105492-1-5 S/N

37P-4705 D. AIRSEARCH E. KC-135A-52-0106 - J57-P594 - S/N

RECEIVED
TRANSPORT DIV

JAN 20 10 23 AM '61

CONTRACT ADM

Boeing Airplane Co.
From: AF Plant Rep.
To: Action
Reply
Info.
Sent by: CSO-1
Date: 1-19-61
Suspense
Date

File
RCH
EMP
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RES

DUPL

JAN 11 15 42 20 4 14 PM '61

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(170411)
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110
(0407)

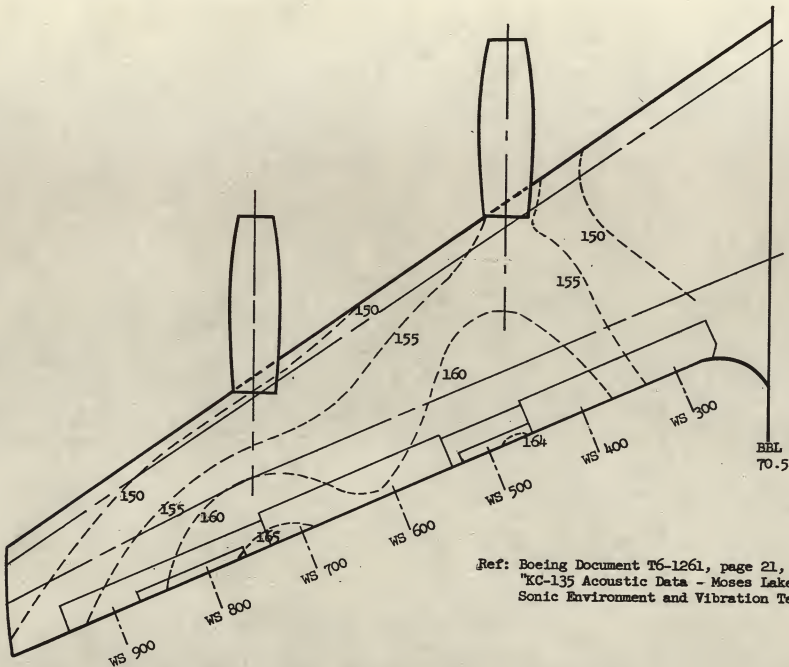
PAGE TWO RJWENK 173A

P-628801 - 902:00. A. DURING NORMAL START PROCEDURE NUMBER 1 ENGINE
FAILED TO INDICATE ROTATION. B. AIR START CONTROL VALVE FAILED TO OPEN
WHEN START SWITCH WAS PLACED IN GROUND START POSITION. ELECTRICAL

-CONTINUITY AND OPERATION OF CONTROL VALVE SOLENOID CHECKED SATIS-
FACTORY. CAUSE OF FAILURE SUSPECTED TO BE BINDING OF CONTROL VALVE
BUTTERFLY VALVE. W. REMOVED AND REPLACED WITH LIKE SERVICEABLE ITEM
I. 4 J. 2 - ONE NOT REPAIRABLE DUE TO FAULTY SOLENOID. ONE NOT REPAIRABLE
DUE TO BINDING BUTTERFLY VALVE. K. APPROXIMATELY 90 PERCENT OF THE
ENGINE START PROBLEMS AT THIS ACTIVITY ARE CAUSED BY FAILURE OF THE
AIRSTART CONTROL VALVE TO OPEN. FAILURE OF THIS VALVE SERIOUSLY
AFFECTS MISSION CAPABILITY. IT IS BELIEVED A MAJOR CAUSE OF CONTROL
VALVE MALFUNCTION IS BINDING OF THE BUTTERFLY VALVE IN THE CLOSED
POSITION. WHEN BINDING OCCURS THE REGULATOR AIR PRESSURE IS INSUFFIC-
IENT TO BREAK THE BUTTERFLY VALVE LOOSE. IT IS RECOMMENDED FAILED W.
CONTROL VALVES IN OTHER ACTIVITIES BE RETURNED TO MANUFACTURER AND A
COMPLETE INVESTIGATION BE CONDUCTED AND CORRECTIVE ACTION TAKEN.
L. 902:00 NEW M. HELD FOR DISPOSITION INSTRUCTION. N. ROBERT L LEWIS
CAPT 4228 STRAT WING APTY PHONE GE4-7646. NON-DUTY GE4-6228. UNQUOTE.

BT

11/2023Z JAN RJWENK



Ref: Boeing Document T6-1261, page 21,
 "KC-135 Acoustic Data - Moses Lake
 Sonic Environment and Vibration Test"

FIGURE 8 - SOUND PRESSURE LEVEL CONTOUR MAP OF KC-135 LOWER WING SURFACE
 (OVER-ALL FREQUENCY BAND AT FULL WET POWER)

DETERMINED, 1 - CONTACT CONNECTIONS DEFECTIVE, 2 - OVERSPEED, 2 - FAULTY PARTS, PERIOD 1 SEP 1960 THRU 28 FEB 1961.

H 9 - BEFORE FLIGHT, 2 - INFLIGHT NO-ABORT, 44 - BETWEEN FLIGHTS, 1 - PREFLIGHT INSPECTION, 1 - HOURLY POSTFLIGHT INSPECTION. PERIOD 1 SEP 1960 THRU 28 FEB 1961.

I 50 - REMOVED AND REPLACED, 1 - REMOVED REPAIRED AND REINSTALLED, 1 - REPAIR OF ATTACHING PARTS, 3 - ADJUST, 2 - REMOVED. PERIOD 1 SEP 1960 THRU 28 FEB 1961

J 57

K 482.2 MANHOURS

L INVESTIGATION REVEALED THE FOLLOWING TYPE MALFUNCTIONS RESULTED IN FAILURE OF FUEL AIR STARTERS P/N 7TNAS18-N05 MANUFACTURED BY

GENERAL ELECTRIC CO: 1. CUT-OUT CENTRIFUGAL SWITCH OPENS CIRCUIT BEFORE ENGINE HAS ATTAINED ENOUGH RPM TO SUSTAIN COMBUSTION.

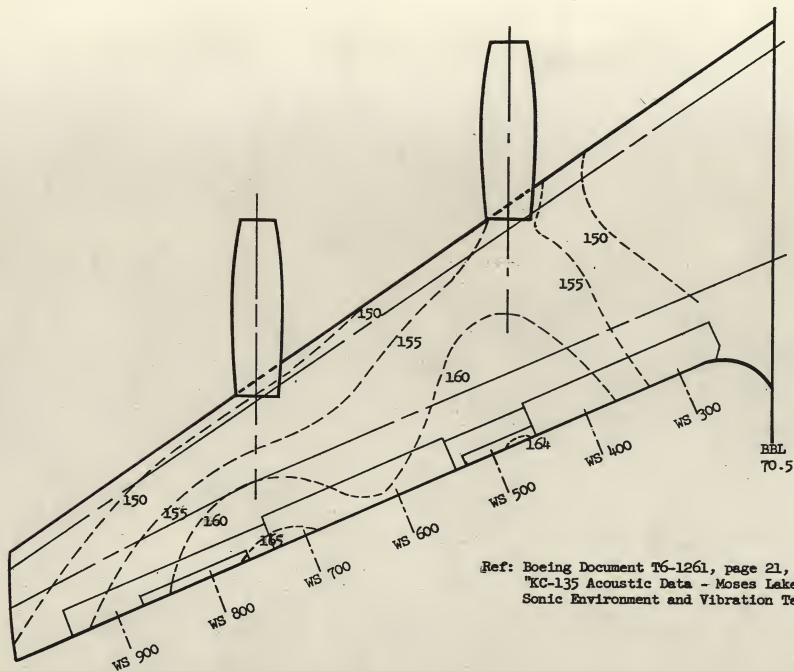
ACCELERATION

2. FUEL INJECTION IS RESTRICTED BY CARBON BUILD-UP AROUND THE INJECTION NOZZLE. 3. FUEL LEAKS DEVELOPING AROUND THE FUEL INJECTION NOZZLE. THE FOLLOWING TYPE MALFUNCTIONS RESULTED IN FAILURE OF FUEL AIR STARTERS P/N HS541091 MANUFACTURED BY HAMILTON STANDARD:

PAGE THREE 432

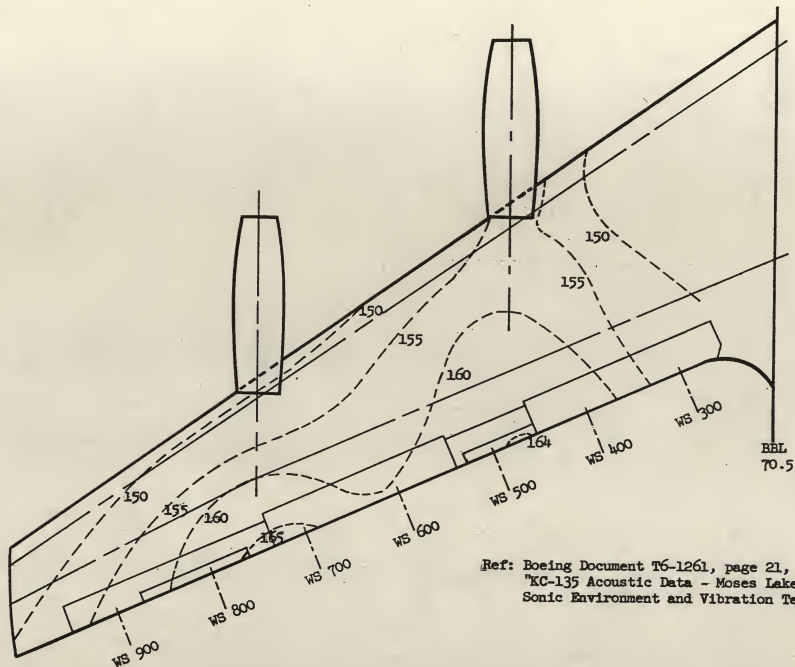
(1) NORMAL CUT-OUT CENTRIFUGAL SWITCH OPENS BEFORE ENGINE HAS ATTAINED ENOUGH RPM TO SUSTAIN COMBUSTION (2) NORMAL CUT-OUT CENTRIFUGAL SWITCH FAILS TO OPEN AND OVERSPEED SWITCH ACTUATES TO STOP STARTER. THE OVERSPEED SWITCH MUST BE RESET MANUALLY AND REQUIRES REMOVAL AND REPLACEMENT OF STARTER (3) CLUTCH FAILS TO MAKE A POSITIVE ENGAGEMENT AND SLIPS UNDER TORQUE. INVESTIGATION REVEALED DEFECTIVE STARTERS ARE PLACED FOR BENCH CHECK. DURING





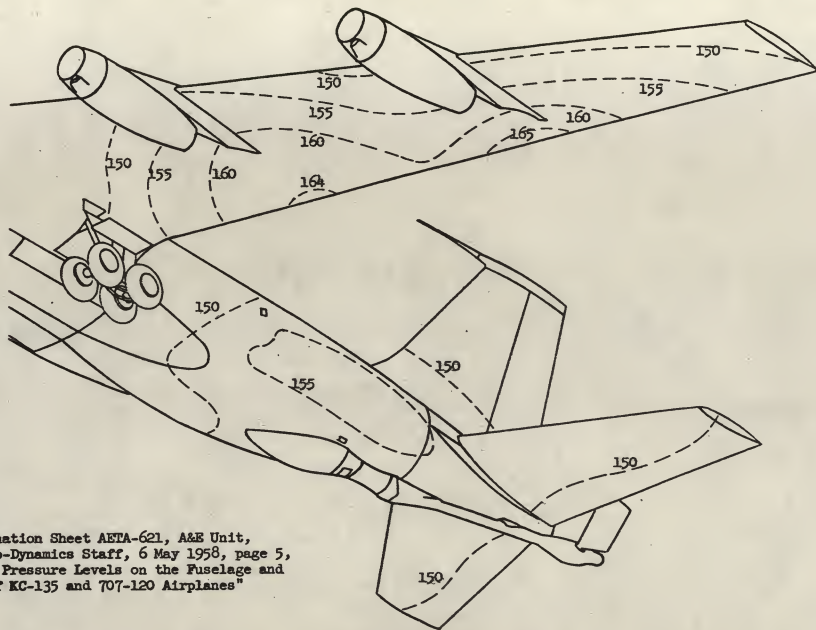
Ref: Boeing Document T6-1261, page 21,
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Ref:

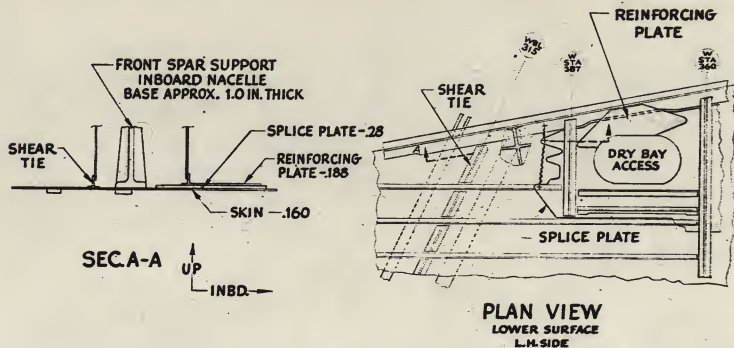
Coordination Sheet AETA-621, A&E Unit,
Electro-Dynamics Staff, 6 May 1958, page 5,
"Sound Pressure Levels on the Fuselage and
Tail of KC-135 and 707-120 Airplanes"

**FIGURE 7 - MEASURED SOUND PRESSURE LEVELS OF OVER-ALL FREQUENCY BAND
ON KC-135 WITH J57-P43 ENGINES AT FULL WET POWER**



LOWER WING SKIN PROBLEM

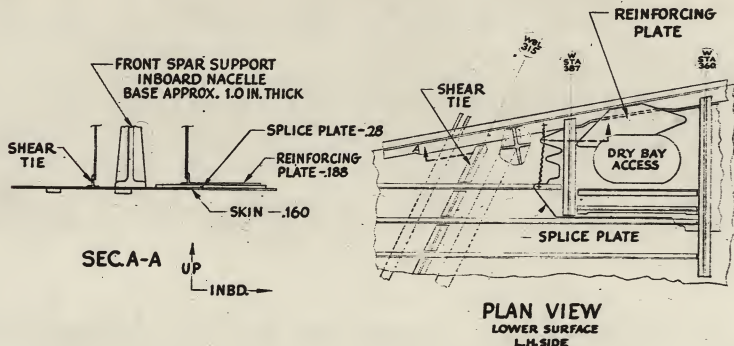
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LOWER WING SKIN PROBLEM

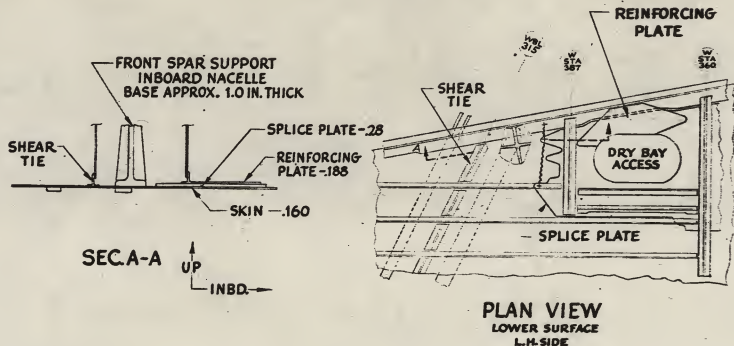
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LOWER WING SKIN PROBLEM

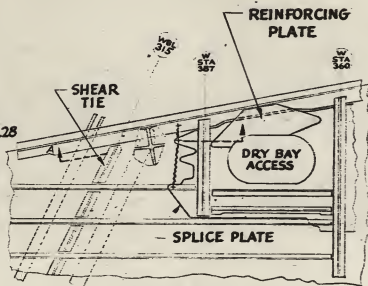
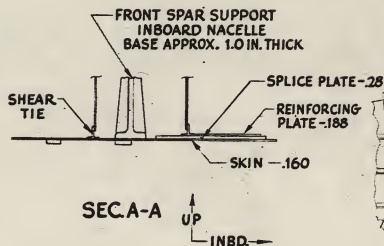
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LOWER WING SKIN PROBLEM

(LEFT WING SHOWN, THOUGH CRACK
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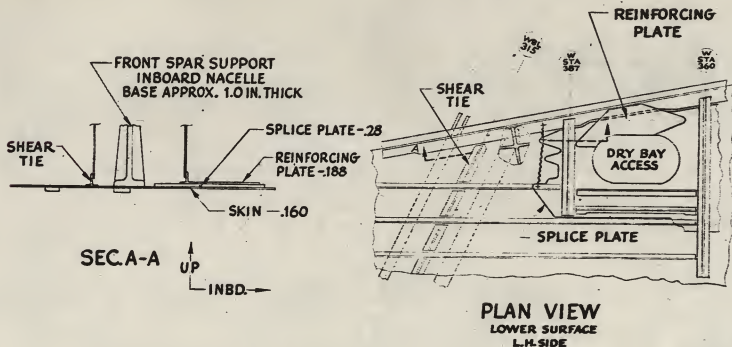


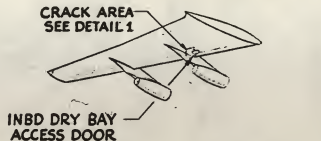
PLAN VIEW
LOWER SURFACE
L.H. SIDE



LOWER WING SKIN PROBLEM

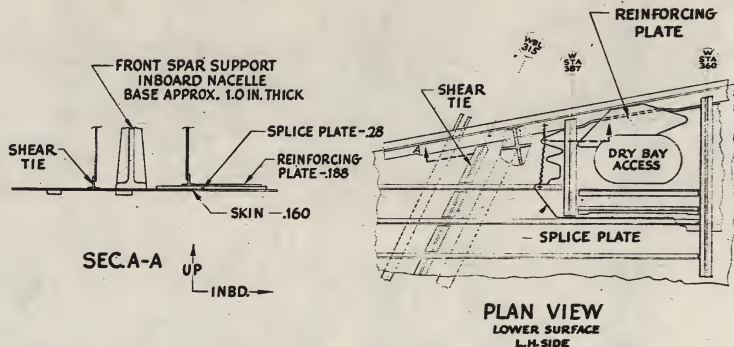
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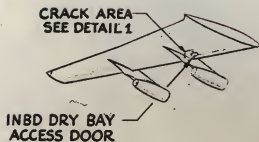




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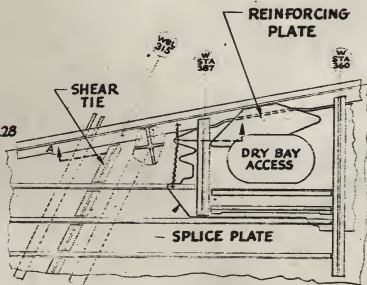
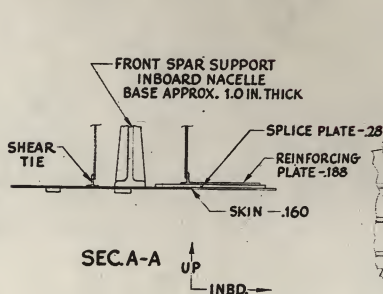
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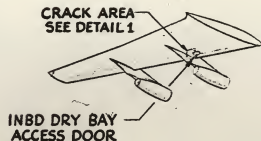


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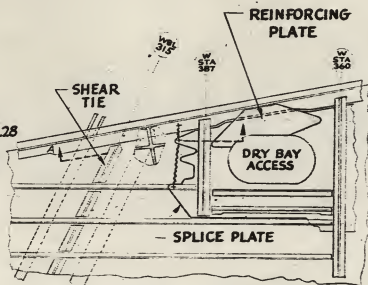
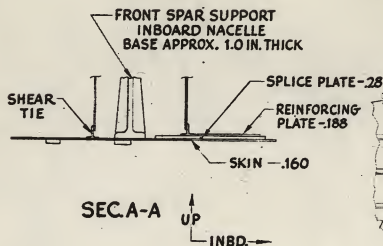


PLAN VIEW
LOWER SURFACE
L.H. SIDE

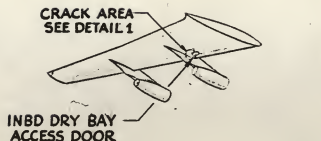


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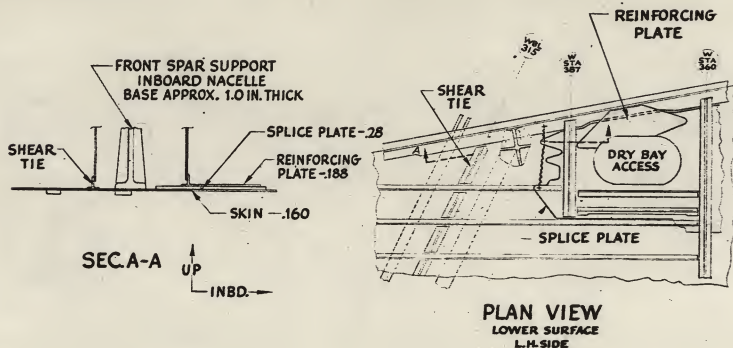


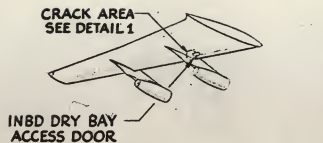
PLAN VIEW
LOWER SURFACE
L.H. SIDE



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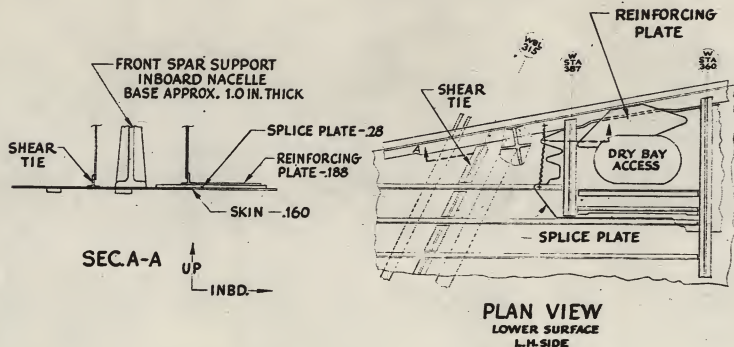
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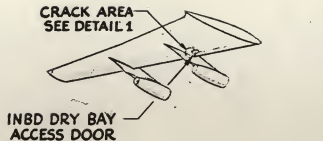




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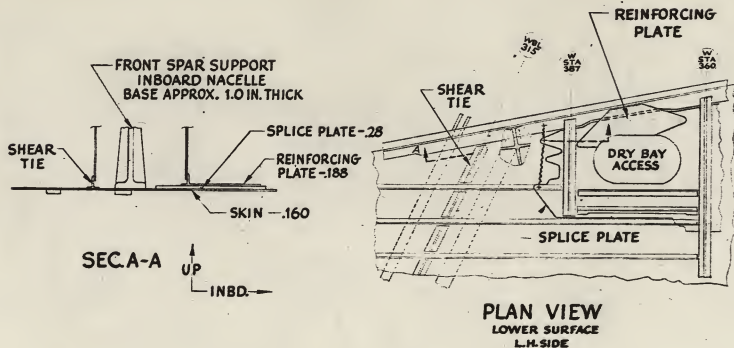
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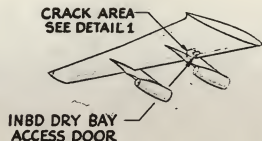




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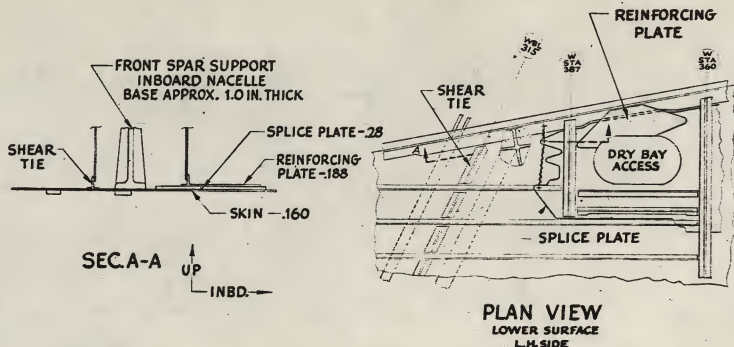
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OCCURRED IN RIGHT WING)





LOWER WING SKIN PROBLEM

(LEFT WING SHOWN, THOUGH CRACK
OCCURRED IN RIGHT WING)



LEADING EDGE SKIN CRACKS

PROBLEM:

CRACKS IN LEADING EDGE SKINS AT THE RIVET COMMON TO THE INTERSECTION OF SPANWISE STRINGER AND THE RIB - UPPER AND LOWER SURFACE

CAUSE:

FATIGUE - BUFFETING OF THE SKIN

ACTION:

- A REPLACE MAGNESIUM SKINS WITH ALUMINUM SKINS
- B REPAIR OF CRACKS
 - 1. CRACK LESS THAN .03 - DRILL OUT RIVET & REPLACE WITH 1/4 INCH RIVET.
 - 2. CRACK LESS THAN .40 - LEAVE AS IS EXCEPT 1 ABOVE
 - 3. CRACK IS .40 TO .75 - STOP DRILL 1/8" & FILL WITH SEALANT
 - 4. TWO OR MORE CRACKS PER RIVET .40 TO .50 - STOP DRILL 1/8" & FILL
 - 5. CRACKS IN EXCESS OF ABOVE - FLUSH PATCH REPAIR PER
IC-135(K)A-3.

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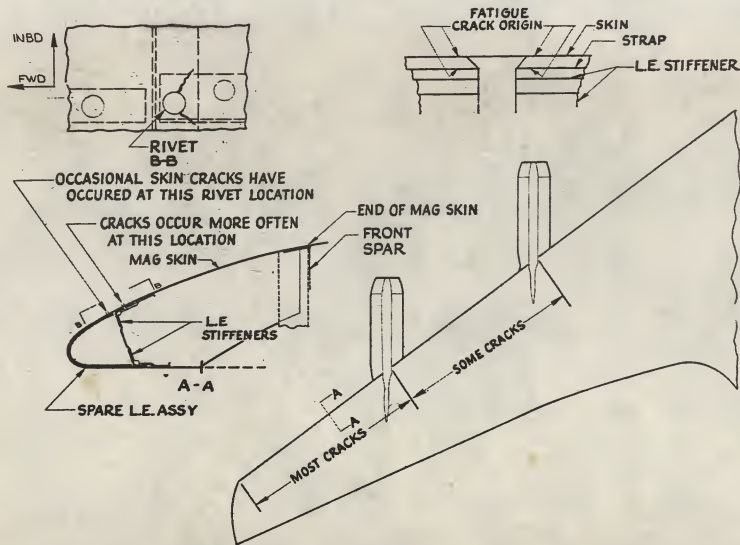
FATIGUE - BUFFETING OF THE SKIN

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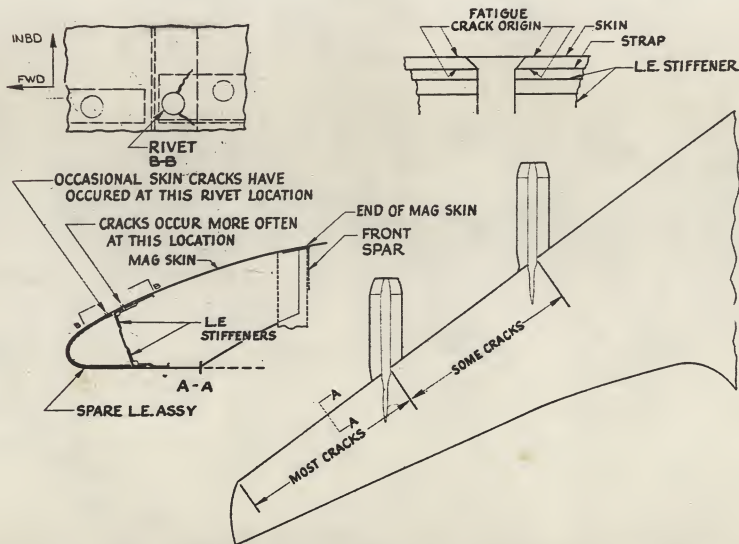
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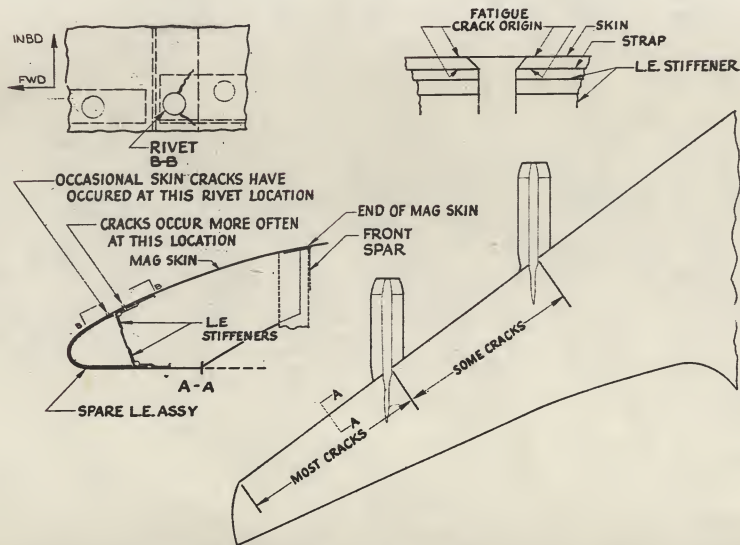
LEADING EDGE SKIN PROBLEM



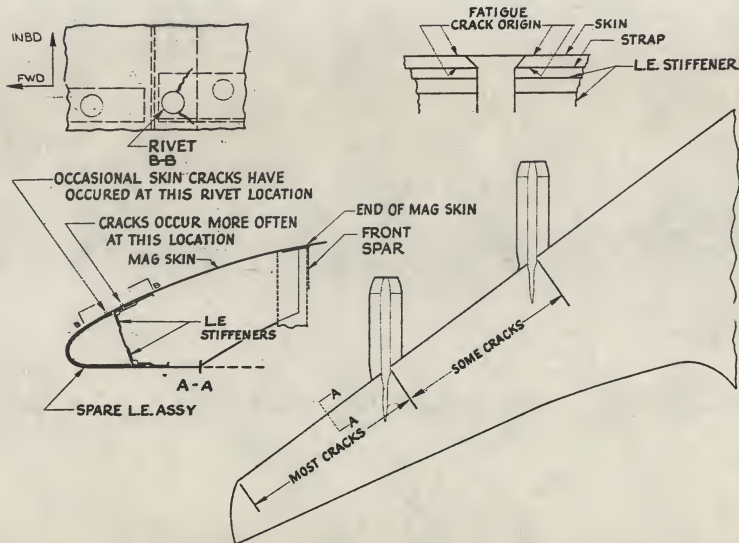
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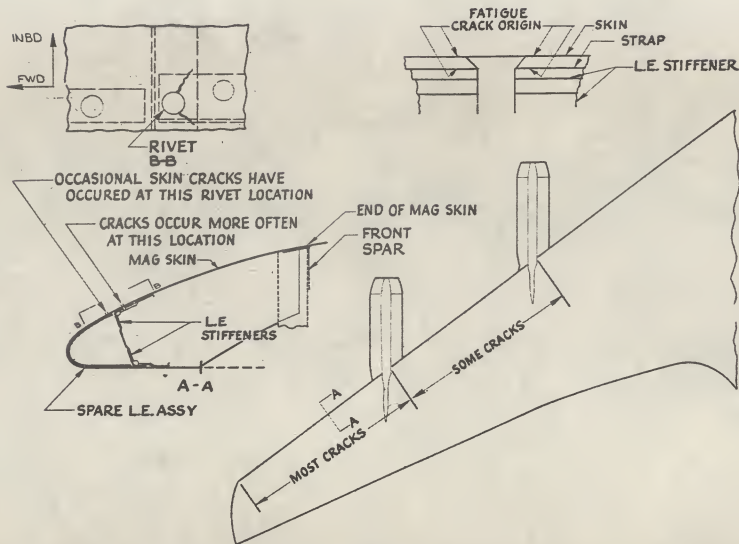
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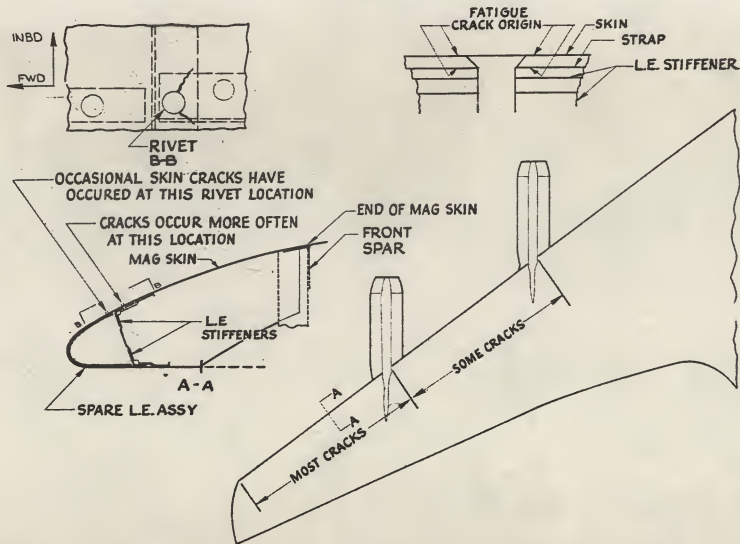
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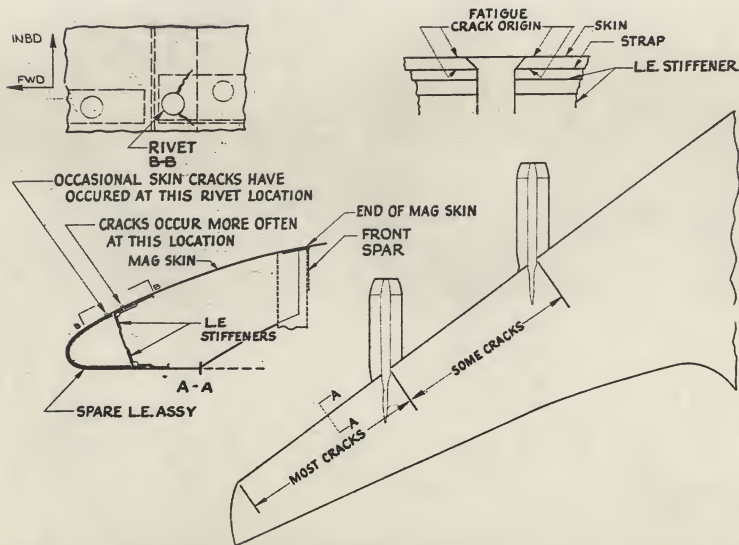
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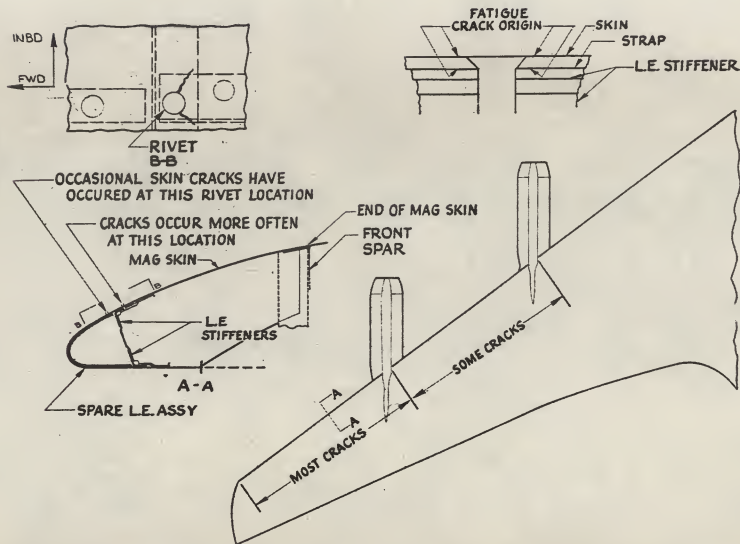
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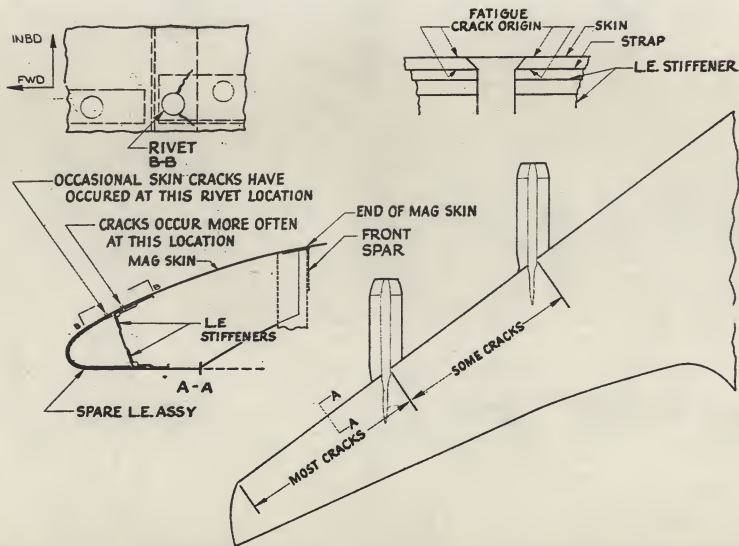
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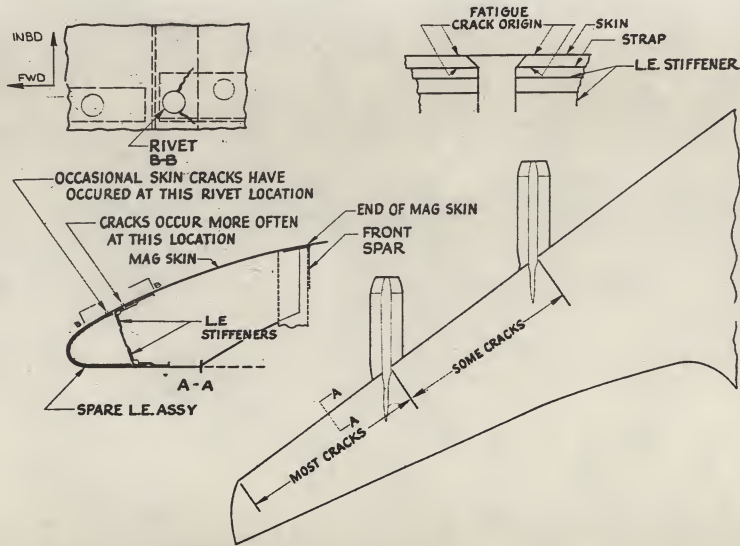
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INBOARD AILERON TAB

PROBLEM

AILERON CONTROL BINDING

CAUSE

TAB NOSE RETENTION SCREWS BACKING OUT (VIBRATION)

ACTION

A PRODUCTION

1. COATED SCREWS AND HELI-COIL INSERTS WITH BMS 5-29
TYPE I OR II EFFECTIVE 59-1483 (386) THRU 59-1497 (400)
2. ITEM 1. PLUS COATED TAB NOSE AND BALANCE WEIGHT WITH BMS 5-19
TYPE B1 EFFECTIVE 59-1498 (401) & ON

B RETROFIT & INSPECTION

1. T.O. -875 INSPECTED SCREWS FOR REQUIRED LENGTH
2. T.O. -915 (RELEASED 29 AUGUST 1960) WILL REQUIRE COATING OF
SCREWS AND HELI-COIL INSERTS WITH BMS 5-29 TYPE I OR II
EFFECTIVE AIRPLANES 57-1464 (144) & ON INCLUDING AILERON
TABS 5-87421-61, -62, -69, -70, -79, -80, -87, -88.

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TABS 5-87421-61, -62, -69, -70, -79, -80, -87, -88.

COMPONENT	PRO- JECTED STRUC- TURAL AREA, SQ FT	NUMBER OF REPORTED KC-135 STRUCTURAL MALFUNCTIONS								TOTAL NUMBER OF PRIMARY MALFUNCTIONS	NUMBER OF MALFUNCTIONS PER SQ FT
		×	○	φ	□	▽	▼	■	●		
		HONEYC'B DELAM.	HINGE CRACKED	CONTROL ROD WORN	SKIN CRACKED	RIB CRACKED	STIFF CRACKED	BRACKET CRACKED	FASTENER LOOSE		
WINGS, Excl.Cont.Surfaces	1992.0	0	2	10	59*	49	9	55	7	191	0.1
Inboard Ailerons	54.0	1	0	21	1	17	0	0	43	83	1.5
Inboard Aileron Tabs	5.8	5	179	32	2	0	0	0	12	230	39.7
Outboard Ailerons	67.0	0	10	0	11	3	1	0	2	27	0.4
Outboard Aileron Tabs	9.0	2	53	27	0	0	0	0	0	82	9.1
Inboard Flaps	162.8	30	0	0	0	1	0	0	0	31	0.2
Outboard Flaps	168.0	20	0	0	15	0	0	0	1	36	0.2
Fillet Flaps	66.8	-	0	0	28	0	0	0	0	28	0.4
FIN, Excl.Cont.Surfaces	197.0	-	0	0	0	0	0	0	2	2	0.01
Rudder	118.3	-	3	1	0	6	0	0	1	11	0.1
Rudder Trim Tab	1.9	5	0	1	1	0	0	0	0	7	3.7
Rudder Control Tab	1.5	4	0	0	0	0	0	0	0	4	2.1
Rudder Antibalance Tab	1.4	10	0	0	0	0	0	0	0	10	7.1
Rudder Stability Tab	3.6	20	1	0	3	0	0	0	0	24	6.7
STABILIZERS, Excl.Cont.Surf.	374.6	-	43	0	1	0	0	0	2	46	0.1
Elevators	132.8	7	7	0	2	0	0	0	0	16	0.1
Elevator Control Tabs	12.9	7	0	0	0	0	0	0	0	7	0.5
Stab. Act. Elevator Tabs	4.9	5	2	8	0	0	0	0	0	15	3.1
WINGS, Incl.Cont.Surf.	2525.4	58	244	90	116*	70	10	55	65	708	0.28
FIN, " " "	323.7	39	4	2	4	6	0	0	3	58	0.18
STABILIZERS, " " "	525.2	19	52	8	3	0	0	0	2	84	0.16
WINGS STABILIZERS FIN	3374.3	116	300	100	123	76	10	55	70	850	0.25
TOTAL		14%	35%	12%	15%	9%	1%	6%	8%	100%	

*Not included are approx. 300 skin cracks emanating from rivet holes in the wing leading edge.

COMPONENT	PRO- JECTED STRUC- TURAL AREA, SQ FT	NUMBER OF REPORTED KC-135 STRUCTURAL MALFUNCTIONS								TOTAL NUMBER OF PRIMARY MALFUNCTIONS	NUMBER OF MALFUNCTIONS PER SQ FT
		×	○	Φ	□	▽	▼	■	●		
		HONEYC'B DELAM.	HINGE CRACKED	CONTROL ROD WORN	SKIN CRACKED	RIB CRACKED	STIFF CRACKED	BRACKET CRACKED	FASTENER LOOSE		
WINGS, Excl.Cont.Surfaces	1992.0	0	2	10	59*	49	9	55	7	191	0.1
Inboard Ailerons	54.0	1	0	21	1	17	0	0	43	83	1.5
Inboard Aileron Tabs	5.8	5	179	32	2	0	0	0	12	230	39.7
Outboard Ailerons	67.0	0	10	0	11	3	1	0	2	27	0.4
Outboard Aileron Tabs	9.0	2	53	27	0	0	0	0	0	82	9.1
Inboard Flaps	162.8	30	0	0	0	1	0	0	0	31	0.2
Outboard Flaps	168.0	20	0	0	15	0	0	0	1	36	0.2
Fillet Flaps	66.8	-	0	0	28	0	0	0	0	28	0.4
FIN, Excl.Cont.Surfaces	197.0	-	0	0	0	0	0	0	2	2	0.01
Rudder	118.3	-	3	1	0	6	0	0	1	11	0.1
Rudder Trim Tab	1.9	5	0	1	1	0	0	0	0	7	3.7
Rudder Control Tab	1.5	4	0	0	0	0	0	0	0	4	2.1
Rudder Antibalance Tab	1.4	10	0	0	0	0	0	0	0	10	7.1
Rudder Stability Tab	3.6	20	1	0	3	0	0	0	0	24	6.7
STABILIZERS, Excl.Cont.Surf.	374.6	-	43	0	1	0	0	0	2	46	0.1
Elevators	132.8	7	7	0	2	0	0	0	0	16	0.1
Elevator Control Tabs	12.9	7	0	0	0	0	0	0	0	7	0.5
Stab. Act. Elevator Tabs	4.9	5	2	8	0	0	0	0	0	15	3.1
WINGS, Incl.Cont.Surf.	2525.4	58	244	90	116*	70	10	55	65	708	0.28
FIN, " " "	323.7	39	4	2	4	6	0	0	3	58	0.18
STABILIZERS, " " "	525.2	19	52	8	3	0	0	0	2	84	0.16
WINGS STABILIZERS FIN	TOTAL 3374.3	116	300	100	123	76	10	55	70	850	0.25
		14%	35%	12%	15%	9%	1%	6%	8%	100%	

*Not included are approx. 300 skin cracks emanating from rivet holes in the wing leading edge.



11/11/11



- (1) Location
 - (2) Description
 - c. Fill and drain procedures
- 6. Oxygen systems
 - a. Oxygen requirements
 - (1) Crew
 - (2) Passengers
 - b. Passenger oxygen system
 - (1) System equipment
 - (a) location
 - (b) type
 - (c) function
 - (2) System operation
 - (3) Servicing
 - (4) Portable oxygen bottles
 - (a) purpose
 - (b) description
 - (c) location
 - c. Crew oxygen system
 - (1) System equipment
 - (a) location
 - (b) description
 - (c) operation
 - (d) servicing
 - (2) Portable oxygen bottle
 - (a) location
 - (b) description
- 7. Lighting



- c. Cargo compartment doors
 - (1) Type
 - (2) Location
 - (3) Description
 - (4) Operation
 - d. Cargo compartment floor and lining
 - (1) General description
 - (2) Insulation
 - (3) Access and inspection openings
 - e. Cargo compartment equipment
 - (1) Shelves
 - (a) description
 - (b) attachment
 - (c) folding provisions
 - (2) Netted webbing
 - (a) description
 - (b) attachment
 - (c) adjustment
 - f. Fire protection
 - (1) Fire detection
 - (2) Control
5. Cabin water systems
- a. Description of systems
 - (1) Forward
 - (2) Aft
 - b. Service panels



- (1) Escape hatches
- (2) Main entry doors
- (3) Galley doors
- (4) Chop-out areas

b. Location and description of emergency equipment

- (1) Escape slides
- (2) Escape ropes
- (3) Life rafts
- (4) Fire extinguishers
- (5) Oxygen
- (6) Life vests
- (7) Crash axes
- (8) First aid kits
- (9) Flares
- (10) Lights
- (11) Special emergency equipment

4. Cargo compartments

a. General description

- (1) Classification
- (2) Forward compartment
- (3) Aft compartment

b. Load capacities and distribution

- (1) Forward compartment
- (2) Aft compartment



- (1) Seating arrangement variations
 - (a) first class
 - (b) tourist
 - (c) mixed service
- k. Floor and floor covering
 - (1) Floor structure
 - (2) Main floor covering
 - (a) removal
 - (b) replacement
 - (3) Lavatory compartment and galley floor covering
- 1. Sidewall windows and panels
 - (1) Insulation
 - (2) Window panels
 - (a) description
 - (b) window size and material
 - (c) window shades
 - (d) panel fasteners
 - (e) removal and installation
 - (3) Dado panels
 - (a) description
 - (b) removal and installation
- m. Ceiling
 - (1) Insulation
 - (2) Panels
 - (a) removal and installation
 - (3) Equipment stowage provisions
- 3. Emergency equipment
 - a. Escape provisions

- f. Galleys
 - (1) Type
 - (2) Location and arrangement
 - (3) Installation
 - (4) Galley service doors
 - (a) type
 - (b) description
 - (c) operation
- g. Coat compartments
 - (1) Description
 - (2) Location
- h. Cabin attendant stations
 - (1) Location
 - (2) Seat provisions
 - (3) Cabin attendant's control panel
 - (a) location and description
 - (b) passenger call system
- i. Miscellaneous passenger cabin equipment
 - (1) Screens and partitions
 - (a) location
 - (b) purpose
 - (2) Magazine racks
 - (a) location
 - (3) Passenger signs
 - (a) type
 - (b) location
- j. Alternate passenger cabin arrangement



- (1) Purpose
- (2) Location
- (3) General description
- d. Passenger service units
 - (1) Purpose
 - (2) Location
 - (3) General description of unit and components
 - (a) air outlets
 - (b) reading lights
 - (c) oxygen masks
 - (d) attendant call
 - (e) loudspeaker
 - (4) Spacing adjustments
- e. Lavatory compartments
 - (1) Location and arrangement
 - (2) Toilet equipment
 - (a) description
 - (b) servicing provisions
 - (3) Wash basin equipment
 - (a) description
 - (b) drain provisions
 - (4) Lavatory compartment equipment
 - (a) description
 - (b) location
 - (c) servicing
 - (5) Signs and indicators
 - (a) type
 - (b) location

- (a) oxygen equipment
 - (b) fire extinguisher
 - (c) crash axe
 - (d) first aid kit
 - (4) Spare bulb storage
 - (5) Facilities
 - f. Interior finish
 - (1) Lining
 - (2) Flooring
2. Passenger cabin equipment and furnishings
- a. Main entry doors
 - (1) Type
 - (2) Location
 - (3) Description
 - (4) Operation
 - b. Passenger seats
 - (1) General description
 - (a) types
 - (b) seat arms
 - (c) ash trays
 - (d) seat pockets
 - (e) recline operation
 - (f) removal
 - (g) installation
 - (2) Seating arrangement
 - (a) method of attachment
 - (b) seat spacing
 - (c) seat identification
 - (d) interchangeability
 - c. Overhead racks

L. Equipment and Furnishings

24 Hours 1, 2, 3, 5, 6, 8,
9

1. Control cabin equipment and
furnishings

a. Crew stations

- (1) Arrangement
- (2) Control panels

b. Crew seats

- (1) Type
- (2) Adjusting features

c. Coat compartment

- (1) Coat storage
- (2) Hat rack
- (3) Bookcase

d. Equipment for crew members

- (1) Data cases
- (2) Sunvisors
- (3) Ash trays
- (4) Oxygen masks and mask storage
- (5) Headset and microphone holders
- (6) Coffee cup holders

e. Control cabin bulkhead

- (1) Location
- (2) Door
- (3) Emergency equipment storage



- (a) type and size
 - (b) cable run
 - (5) Aft rudder quadrant
 - (a) location
 - (b) tab linkage and centering spring
 - (6) Upper control tab
 - (7) Lower control and anti-balance tab
 - (8) Gust damper
- c. Rudder trim system
- (1) Trim control knob
 - (a) degrees trim
 - (b) pointer
 - (2) Control cables
 - (a) type and size
 - (b) cable run
 - (3) Trim actuator assembly
 - (a) cable attachment
 - (b) movement
 - (c) brake assemblies
 - (4) Rudder trim tab
 - (a) tab attachments
 - (b) deflection angles
 - (c) rudder deflections
- d. Rigging procedures
- (1) Control cables
 - (2) Linkage
8. Examination and review



- (4) Control cables
 - (a) type and size
 - (b) cable run
 - d. Rigging procedures
 - (1) Cable system
 - (2) Linkage
- 7. Rudder system
 - a. Rudder design
 - (1) Structure
 - (a) spars
 - (b) ribs
 - (c) skin
 - (d) balance panel and seals
 - (e) tabs
 - (f) attachments
 - (2) Operational description
 - (a) deflection angles
 - (b) structural stops
 - b. Rudder control system
 - (1) Rudder pedals
 - (a) attachment points
 - (b) stops
 - (2) Rudder pedal adjustment
 - (a) crank and flexible shaft
 - (b) universal joint and screw mechanism
 - (3) Forward quadrants and bus system
 - (a) attachments
 - (b) left and right bus system
 - (4) Control cables



(2) Operational description

- (a) deflection angle
- (b) effectiveness

b. Electrical actuation

(1) Control switches

- (a) location
- (b) positions

(2) Cutout switch

- (a) location
- (b) function

(3) Warning light

- (a) location
- (b) function

(4) Trim actuator

- (a) trim motor
- (b) magnetic clutch
- (c) slip clutch
- (d) limit switches
- (e) jack screw
- (f) differential gearing
- (g) aft cable drum
- (h) auto-pilot servo

c. Manual actuation

(1) Control wheel

(2) Chain drive and sprockets

- (a) location
- (b) function

(3) Forward drum mechanism

- (a) input
- (b) cable attachments
- (c) position indicator attachment

- (a) cable type and size
 - (b) cable run
 - (3) Elevator control quadrant
 - (a) structural attachments
 - (b) auto-pilot servo attachment
 - (4) Centering spring
 - (a) function
 - (5) Control tab linkage and stops
 - (a) components
 - (6) Control tabs
 - (a) type
 - (b) function
 - (7) Gust damper
 - (a) location
 - (b) function
 - c. Stabilizer actuated tab
 - (1) Linkage
 - (2) Tab
 - d. Rigging procedures
 - (1) Cable systems
 - (2) Linkages
6. Stabilizer trim
- a. Design features
 - (1) Structure
 - (a) torque box
 - (b) attachments



- (4) Inboard control differential
 - (5) Inboard control valve
 - (a) input
 - (b) follow-up
 - (6) Outboard control differential
 - (7) Outboard control valve
 - (a) input
 - (b) follow-up
 - d. Rigging procedures
 - (1) Cable system
 - (2) Linkages
- 5. Elevator system
 - a. Elevator design
 - (1) Structure
 - (a) spars
 - (b) ribs
 - (c) skin
 - (d) balance panel and seals
 - (e) tabs
 - (f) attachments
 - (2) Operational description
 - (a) deflection angles
 - (b) stops
 - b. Elevator control system
 - (1) Control column
 - (a) deflection angles
 - (b) stops
 - (2) Control cables



- (a) construction
- (b) materials
- (c) attachments

(2) Operational description

- (a) deflection angles
- (b) blow down features
- (c) aerodynamic separation control
- (d) warning horn

b. Spoiler control system

(1) Control wheel

(2) Control cables

- (a) cable type and size
- (b) cable run

(3) Control quadrant and linkage

(4) Spoiler control valve

- (a) input
- (b) follow-up

(5) Spoiler actuator

- (a) location
- (b) attachments

(6) Spoiler follow-up differential

c. Speed brake control system

(1) Speed brake control lever

- (a) location
- (b) positions

(2) Control cables

- (a) cable type and size
- (b) cable run

(3) Input quadrant



- (5) Centering spring
 - (6) Gust damper
 - (7) Control tab
 - c. Outboard aileron control system
 - (1) Aileron balance bus
 - (a) cable type and size
 - (2) Control quadrant
 - (3) Lockout mechanism
 - (4) Control linkage
 - (5) Balance tab
 - d. Aileron trim system
 - (1) Trim control knob
 - (a) location
 - (b) trim indicator
 - (2) Control cable
 - (a) cable type and size
 - (b) cable run
 - (3) Trim mechanism
 - (a) jack screw
 - (b) brake
 - e. Rigging procedures
 - (1) Cable systems
 - (2) Linkages
4. Spoiler and speed brake system
- a. Spoiler design
 - (1) Structure



- (2) AC electrical motors
 - (a) location
 - (b) type
 - (c) output
 - f. Rigging procedures
 - (1) Control cables
 - (2) Drive system linkage
3. Aileron system
- a. Aileron design
 - (1) Structure
 - (a) spars
 - (b) ribs
 - (c) skin
 - (d) balance panel and seals
 - (e) tabs
 - (f) attachments
 - (2) Operational description
 - (a) deflection angles
 - (b) structural stops
 - b. Inboard aileron control system
 - (1) Control wheel
 - (a) type
 - (b) switches
 - (c) deflection angles
 - (2) Control cable system
 - (a) cable type and size
 - (b) cable run
 - (3) Control quadrant
 - (4) Control tab linkage



(3) Flap drive motors

- (a) location
- (b) type

(4) Flap by-pass valve

- (a) location
- (b) type
- (c) power supply
- (d) function

d. Flap drive and position

(1) Inboard and outboard flap drive units

- (a) location
- (b) input
- (c) internal gearing
- (d) torque drive output

(2) Flap drive torque tubes

- (a) location
- (b) couplings
- (c) drive screw and gear boxes

(3) Outboard aileron lockout mechanism

- (a) angle gear box
- (b) jack screw
- (c) aileron lockout attachment

(4) Flap position transmitter and indicator system

- (a) power supply
- (b) transmitters
- (c) indicators

e. Emergency electrical flap drive system

(1) Control

- (a) power supply
- (b) control switches
- (c) relays
- (d) limit switches

(1) Location

- (a) inboard
- (b) outboard
- (c) fillet

(2) Structure

- (a) ribs
- (b) skin
- (c) attachments

(3) Operational description

- (a) fore flap
- (b) cove lip door
- (c) flap angle
- (d) operating time
- (e) speed limitations
- (f) flap actuated speed brake cam
- (g) trim requirements vs flap position

b. Flap control system

(1) Control handle

- (a) location
- (b) detents
- (c) warning horn

(2) Control cable system

- (a) cable type and size
- (b) cable run

c. Flap hydraulic system

(1) Flow regulating valve

- (a) location
- (b) flow rate
- (c) function

(2) Flap metering valves

- (a) location
- (b) input
- (c) follow-up system

K. Flight Controls

24 Hours 1, 2, 3, 5, 6, 8,
9

1. Introduction

a. Control surface location

- (1) Inboard ailerons
- (2) Outboard ailerons
- (3) Spoilers - speed brakes
- (4) Elevators
- (5) Rudder
- (6) Wing flaps
- (7) Stabilizer trim

b. Aerodynamic balance panels

(1) Control tabs

- (a) actuation

(2) Internal balance panels

- (a) hinges
- (b) seals
- (c) static balance
- (d) air bleed control

c. Control tab follow-up ratio

(1) Positive

- (a) definition
- (b) function

(2) Negative

- (a) definition
- (b) function

2. Wing flap system

a. Flap design

- (2) Actuation
 - (3) Pneumatic ports
 - (4) Operation
 - d. Shuttle valve
 - (1) Location
 - (2) Actuation
 - e. Brake
 - (1) Pneumatic actuation
- 8. Anti-skid system
 - a. Skid detector
 - (1) Location
 - (2) Flywheel rotation
 - (3) Commutator signal pickups
 - b. Control shield
 - (1) Location
 - (2) Signal action
 - c. Dual anti-skid valve
 - (1) Location
 - (2) Function
 - (3) Signal reaction
 - (4) Brake pairs controlled
- 9. Examination and review



- (6) Lockout deboost valves
 - (a) location
 - (b) lockout function
 - (c) deboost function
 - (d) servicing operation
- (7) Automatic brake adjuster valve
 - (a) location
 - (b) function
 - (c) operation
- (8) Shuttle valve
 - (a) location
 - (b) function
 - (c) operation
- (9) Brake
 - (a) location
 - (b) type
 - (c) operation

7. Pneumatic brake system

- a. Pneumatic cylinder
 - (1) Location
 - (2) Charge pressure
 - (3) Charging valve location
- b. Pressure indicating system
 - (1) Cylinder gage
 - (a) location
 - (2) Cockpit gage
 - (a) location
- c. Pneumatic pressure control
 - (1) Location



- (4) Brake control cable system
 - (a) cable type and size
 - (b) cable routing
 - (5) Centering spring
 - (a) location
 - (b) function
 - (6) Metering valve
 - (a) cable attachment
 - (b) actuation
- b. Brake hydraulic system
- (1) Brake pressure source
 - (a) utility system
 - (b) auxiliary system
 - (2) Brake accumulator
 - (a) location
 - (b) pneumatic charge
 - (3) Accumulator charge indicating system
 - (a) transmitter location
 - (b) gage location
 - (4) Brake metering valves
 - (a) location
 - (b) mechanical actuation
 - (c) L. G. "Up" pressure actuation
 - (d) hydraulic ports
 - (e) operation
 - (5) Dual anti-skid valves
 - (a) location
 - (b) hydraulic ports
 - (c) function



- (2) Steering disconnect valve
 - (a) installation
 - (b) trunnion actuation
- (3) Steering metering valve
 - (a) installation
 - (b) hydraulic ports
 - (c) actuation means
 - (d) hydraulic fluid flow
 - (e) centering springs action
 - (f) compensator action
 - (g) flow by-pass passages
- (4) Steering cylinders
 - (a) attachment points
 - (b) hydraulic ports
 - (c) operation
- (5) Nose wheel centering
 - (a) oleo cam arrangement
 - (b) actuation
 - (c) switch location

6. Hydraulic brake system

a. Mechanical control system

- (1) Brake pedals
 - (a) location
 - (b) actuation
- (2) Pedal linkage
 - (a) pedal to crank drum
 - (b) pilot-copilot interconnect
- (3) Parking brake
 - (a) handle location
 - (b) catch location
 - (c) parking brake application
 - (d) parking brake release



- (a) location
- (b) color

(3) Circuit

- (a) wiring installation
- (b) power source
- (c) circuit breaker
- (d) operation

5. Nose wheel steering

a. Steering control cable system

(1) Steering wheel

- (a) location
- (b) operation

(2) Cable drum

- (a) location
- (b) steering wheel rod connection
- (c) centering switch installation

(3) Control cable system

- (a) cable type and size
- (b) cable routing

(4) Steering follow-up mechanism

- (a) location
- (b) type
- (c) operation

(5) Steering knuckle

- (a) cable attachment
- (b) follow-up action

b. Steering hydraulic system

(1) L. G. selector valve

- (a) valve actuation
- (b) pressure source

- (3) Lock switches
 - (a) location
 - (b) actuation
- (4) Gear warning light
 - (a) location
 - (b) color
- (5) L. G. control lever switches
 - (a) location
 - (b) lever actuation
- (6) Warning relays
 - (a) location
 - (b) electrical energizing
 - (c) operation sequence
- (7) Warning horn
 - (a) location
 - (b) sound
- (8) Throttle retard switches
 - (a) location
 - (b) throttle actuation
- (9) Circuit
 - (a) wiring installation
 - (b) power source
 - (c) circuit breakers
 - (d) down and lock operation
 - (e) gear warning light operation
 - (f) gear warning horn operation

c. Gear door warning

- (1) Door lock switches
 - (a) location
 - (b) actuation
- (2) Warning light



4. Landing gear electrical systems

a. Landing gear lever latch control

(1) Lever latch switches

- (a) location
- (b) lock action

(2) Nose gear centering switch

- (a) location
- (b) actuation

(3) Main and nose gear safety switches

- (a) location
- (b) strut actuation

(4) Main gear truck level switch

- (a) location
- (b) truck actuation

(5) Safety relays

- (a) location
- (b) electrical energizing

(6) Circuit

- (a) wiring installation
- (b) power source
- (c) circuit breakers
- (d) operation

b. Landing gear position and warning

(1) Gear down and lock lights

- (a) location
- (b) color
- (c) dimmer control

(2) Gear position switches

- (a) location
- (b) actuation

- (d) door opening action
 - (e) gear release action
 - (f) gear down lock action
 - (3) Emergency extension cable system
 - (a) cable type and size
 - (b) cable routing
 - (c) cable spring cartridge installation
 - (4) Emergency N.G. door release
 - (a) cable routing
 - (b) operation
 - (5) Release drum
 - (a) location
 - (b) locking shaft attachment
 - (c) release operation
 - (6) N.G. down lock system
 - (a) down lock pin installation
 - (b) down lock actuation
 - (c) reset of down lock system
- d. Nose gear rigging
- (1) L.G. control valve
 - (a) centering pin location
 - (b) cable rigging
 - (2) Nose gear mechanical linkage
 - (a) drag brace travel
 - (b) gear actuator travel
 - (c) lock rod travel
 - (d) lock retention rod travel
 - (e) oleo extension
 - (3) Emergency extension
 - (a) emergency door release travel
 - (b) gear release travel
 - (c) gear down lock travel

- (d) sequence of port openings
- (6) N. G. lock retention actuator
 - (a) hydraulic port
 - (b) operation
- (7) N. G. lock actuator
 - (a) hydraulic ports
 - (b) operation
- (8) N. G. actuator
 - (a) hydraulic ports
 - (b) operation
- (9) Variable restrictor
 - (a) location
 - (b) purpose
 - (c) hydraulic ports
 - (d) operation
- (10) Fixed restrictors (3)
 - (a) locations
 - (b) purposes
 - (c) hydraulic operation
- (11) Restrictor check valve
 - (a) location
 - (b) purpose
 - (c) hydraulic operation
- c. Emergency extension system
 - (1) Handcrank
 - (a) storage
 - (b) use
 - (2) Handcrank drum
 - (a) location
 - (b) cranking direction
 - (c) pawl operation

- (a) attachment points
 - (b) steering forces action
- (10) Steering metering valve
 - (a) valve housing installation
 - (b) follow-up mechanism location
- (11) Landing gear doors
 - (a) attachment points
 - (b) hydraulic actuator installation
 - (c) lock retention bungee installation
 - (d) operation
- b. Nose gear hydraulic system
 - (1) L. G. selector valve
 - (a) cockpit to valve control cable operation (repeat from M. G.)
 - (b) hydraulic ports (repeat from M. G.)
 - (c) three positions (repeat from M. G.)
 - (2) L. G. door control valve
 - (a) location
 - (b) mechanical actuation
 - (c) hydraulic ports
 - (d) sequence of port openings
 - (3) N. G. door actuator
 - (a) location and attachment
 - (b) hydraulic ports
 - (4) N. G. door safety valve
 - (a) location
 - (b) actuation
 - (c) hydraulic ports
 - (d) operation
 - (5) N. G. sequence valve
 - (a) location
 - (b) mechanical actuation
 - (c) hydraulic ports

- (a) temperature limitations
 - (b) altitude limitations
 - (2) Electrical control
 - (a) control switches
 - (b) pressure switches and lights
 - (c) power lever position
 - (d) fuel regulator water sensing line
5. Fire protection system
- a. Overheat and fire detection system
 - (1) Detector
 - (a) location
 - (b) type
 - (2) Detection control
 - (a) electronic amplifier
 - (b) warning lights
 - (c) warning bell
 - (d) warning bell cutout
 - b. Fire extinguishing system
 - (1) Bottles
 - (a) location
 - (b) discharge valves
 - (c) fire extinguishing agent
 - (2) Plumbing and manifolds
 - (3) Discharge selector valves
 - (4) Operation and control
 - (a) switches
 - (b) relays
6. Engine instrument systems

c. Constant speed drive oil system

(1) Oil tank

- (a) location
- (b) quantity
- (c) filler

(2) Oil cooler

- (a) temperature control
- (b) bypass and relief control

4. Water injection system

a. System description

(1) Water tank

- (a) location
- (b) quantity and indication
- (c) water pumps
- (d) drain valves
- (e) filler
- (f) thermal drain valve

(2) Plumbing

- (a) locations
- (b) drain valves

(3) Engine mounted equipment

- (a) shutoff valve
- (b) regulator
- (c) discharge manifold

b. Fill and drain procedures

(1) Water quality

(2) Drain valve position

c. Operation

(1) Requirements

- (b) construction
 - (c) filler
 - (d) quantity indication
 - (e) shutoff valve
- (2) Oil pressure pump
- (a) location
 - (b) type
 - (c) check and relief valves
 - (d) quantity output
 - (e) pressure output
 - (f) pump case drain
- (3) Oil pressure filter
- (a) type and location
 - (b) bypass relief
- (4) Oil pressure indicating system
- (a) pressure transmitter
 - (b) pressure indicator
- (5) Oil pressure distribution
- (a) oil jet locations
 - (b) bearings
 - (c) bearing seals
- (6) Oil scavenge system
- (a) pumps
 - (b) distribution
- (7) Oil cooler
- (a) location
 - (b) medium of heat exchange
 - (c) temperature control
 - (d) bypass and relief control
- (8) Oil breather system
- (a) case vents
 - (b) oil centrifuge

- (3) Turbine wheel cooling air
- b. Compressor surge bleed control
 - (1) Surge bleed governor
 - (a) flyweight governor
 - (b) metering valves
 - (c) temperature bias
 - (2) Bleed control valve
 - (a) internal operation
 - (b) operation schedule
- c. Turbocompressor air bleed
 - (1) Location and control
- d. Engine and nose cowl anti-icing
 - (1) Engine inlet anti-icing
 - (a) flow control
 - (b) air flow passage
 - (2) Nose cowl anti-icing
 - (a) flow and temperature control
 - (b) anti-icing air distribution
- 3. Engine oil systems
 - a. Types of oils
 - (1) Lubrication
 - (2) Preservation
 - (3) Quantities
 - b. Description and operation
 - (1) Engine oil tank
 - (a) location



(1) Overall dimensions

- (a) length
- (b) diameter
- (c) weight

(2) Components

- (a) case breakdown
- (b) compressors
- (c) combustion chambers
- (d) turbine wheels
- (e) inlet and ex it ducts
- (f) thrust reverser and noise suppressor

(3) Engine cowling

b. Engine accessories

(1) Engine fuel system

- (a) fuel flowmeter
- (b) fuel pump
- (c) fuel control unit
- (d) pressurizing and dump valve
- (e) fuel nozzle arrangement

(2) Hydraulic pump

(3) AC generator constant speed drive

- (a) oil supply tank and lines
- (b) drive mechanism

(4) Engine starter

- (a) pneumatic starters
- (b) combustor

2. Air bleed systems

a. Engine internal air flow

- (1) Thrust bearing balance chamber air
- (2) Surge bleed chamber

- (2) Waterlines
- (3) Buttock lines
- b. Design objectives and testing
- c. Structural systems descriptions
 - (1) Stress paths
 - (2) Fail-safe provisions
- 3. Materials
 - a. Description of materials
 - (1) Strength
 - (a) stress-strain
 - (b) fatigue
 - (c) residual
 - (d) influencing factors
 - (2) Fastening
 - (a) mechanical
 - (b) thermal
 - (c) chemical
 - (3) Forming
 - (a) deforming
 - (b) machining
 - (c) chemical milling
 - 4. Processes
 - a. Finish requirements
 - b. Heat treating
 - 5. Examination and review

D. Power Plant 32 Hours 1, 2, 3, 5, 6, 8, 9

 - 1. General
 - a. Description of engine



- (2) Waterlines
 - (3) Buttock lines
 - b. Design objectives and testing
 - c. Structural systems descriptions
 - (1) Stress paths
 - (2) Fail-safe provisions
 - 3. Materials
 - a. Description of materials
 - (1) Strength
 - (a) stress-strain
 - (b) fatigue
 - (c) residual
 - (d) influencing factors
 - (2) Fastening
 - (a) mechanical
 - (b) thermal
 - (c) chemical
 - (3) Forming
 - (a) deforming
 - (b) machining
 - (c) chemical milling
 - 4. Processes
 - a. Finish requirements
 - b. Heat treating
 - 5. Examination and review
- D. Power Plant 32 Hours 1, 2, 3, 5, 6, 8, 9
- 1. General
 - a. Description of engine

f. Electrical power

(1) Alternating current

- (a) power source
- (b) components
- (c) distribution
- (d) control

(2) Direct current

- (a) power source
- (b) components
- (c) distribution
- (d) control

(3) External power

- (a) type and source
- (b) components
- (c) distribution
- (d) control

7. Examination and review

8. Field trip

C. Structures

4 Hours 1, 2, 3, 5, 6, 8

1. Section breakdown

a. Numerical identification of airplane sections

- (1) Structural divisions
- (2) Non-structural installations

- (a) electrical
- (b) passenger accommodations
- (c) other

2. Airplane structure

a. Dimensioning practices

- (1) Stations

- (2) Width
 - (3) Cross section height
- e. Landing gear
 - (1) Tread - main gear
 - (2) Wheel base-nose to main gear
 - (3) Main gear - wheels and tires
 - (4) Nose gear - wheels and tires
 - (5) Turning radius
- 4. Principle design weights
 - a. Maximum ground handling
 - b. Maximum in-flight
 - (1) Flaps up
 - (2) Flaps down
 - c. Reserve fuel limitation
 - d. Basic
- 5. General interior arrangement and accommodations
 - a. Control cabin
 - b. Main cabin
- 6. Major systems
 - a. Engine
 - b. Fuel
 - c. Manual
 - d. Hydraulic power
 - e. Pneumatic power

- (8) Aspect ratio
- (9) Mean aerodynamic chord
- (10) MAC location
- b. Flap area
 - (1) Inboard
 - (2) Outboard
 - (3) Fillet
 - (4) Total
- c. Control surfaces areas
 - (1) Aileron
 - (a) inboard
 - (b) outboard
 - (c) total
 - (2) Horizontal stabilizer
 - (a) span
 - (b) elevator area
 - (c) total area
 - (3) Vertical stabilizer
 - (a) height
 - (b) rudder area
 - (c) dorsal area
 - (d) total area
 - (4) Spoilers
 - (a) inboard area
 - (b) outboard area
 - (c) total area
- d. Body
 - (1) Length



- (2) Wing
 - (a) swept, low
 - (b) flexible, full cantilever
 - (c) "wet"
- (3) Body
 - (a) semi-monocoque
 - (b) pressurized
- (4) Tail surfaces
 - (a) swept
 - (b) canti-lever
 - (c) folding fin
 - (d) controllable stabilizer
- (5) Landing gear
 - (a) tricycle
 - (b) truck-type main gear

3. Principle dimensions

- a. Wing
 - (1) Span
 - (2) Area
 - (3) Chord
 - (a) root
 - (b) tip
 - (4) Taper ratio
 - (5) Incidence angle
 - (a) root
 - (b) tip
 - (6) Dihedral
 - (7) Sweep back

- a. Attendance
- b. Examining
- c. Bell system
- d. Smoking privileges
- e. Facilities
 - (1) Cafeteria
 - (2) Snack bar
 - (3) Rest rooms
 - (4) Classroom
 - (5) Telephone service
 - (6) Transportation
 - (7) Coat racks

B. Airplane General Description

7½ Hours 1, 2, 3, 5, 6, 9
10, 11

1. Introduction

- a. History of development
- b. 367-80 prototype
 - (1) First flight
- c. Customer airplane
 - (1) "X" model
 - (2) Quantity contracted
 - (3) Time schedule

2. Description

- a. Type
 - (1) Number of engines



- a. Structure
- b. Service organization
- c. Training unit
- 2. Program
 - a. Company
 - b. Customer
- 3. Equipment
 - a. Graphic aids
 - (1) Reproducibles
 - (2) Transparencies
 - b. Training devices
 - (1) Cockpit procedures
 - (2) Landing gear
 - (3) Electrical
 - (4) Hydraulic
 - (5) Flight controls
 - (6) Fuel system
 - (7) Air conditioning and pressurization
 - c. Models
 - d. Cutaway parts
 - e. Films
 - f. Manuals
- 4. School procedures



COURSE OUTLINE
INSTRUCTORS AND MAINTENANCE PERSONNEL COURSE
PAA 7121-5

	<u>Hours</u>	<u>Manner of Training</u>
I. TITLE, DURATION, AND MANNER OF TRAINING		
A. Title: Model 707-121 Instructors and Maintenance Personnel		
B. Duration: 192 Hours (24 Academic Days)		
C. Manner of Training:		
1. Lecture		
2. Projection transparencies		
3. Maintenance manual		
4. Flight manual		
5. Films		
6. Charts or photo enlargements		
7. Models		
8. Parts or cutaways		
9. Trainer		
10. Mock-up		
11. Airplane		
II. OUTLINE OF INSTRUCTION		
A. Orientation	½ Hour	1, 2, 6
1. Boeing organization		

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ART ORDER NUMBER	SECTION 73 (cont.) ENGINE FUEL AND CONTROL	PAA-121 D6-1048	AA-123 D6-2757	CAL-124 D6-2756	TWA-131 D6-2758	SEA-138 D6-2763	CUB-139	BIF-227 D6-2759	PAA-321	AF-328 D6-2761	SAB-329 D6-2760	TWA-331	LUFT-430 D6-2764	BOAC-436	AII-437 D6-2762
73-12	Engine Driven Fuel Pump	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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☒ ART OR WRITTEN

FA - INE CONTROL VSTE (121)

☒

SECTION 74

IGNITION

SECTION 75

AIR

[illegible]

ART
ORDER
NUMBER

SECTION 76

ENGINE CONTROLS

PAA-121
D6-1048

AA-123
D6-2757

CAL-224
D6-2756

TWA-131
D6-2758

QEA-138
06-2763

CUB-139

BNP-227
06-2759

PA-321

UF-328
66-2761

AB-329
6-2760

WA-331

UFT-430
6-2764

OAC-436

II-437
6-2762

76-1

Engine Throttle Controls

76-2

Engine Tachometer

76-3

Engine Control Cables

[illegible]

☒ ART OR WRITTEN[illegible]

ENGINE OIL

ENGINE OIL

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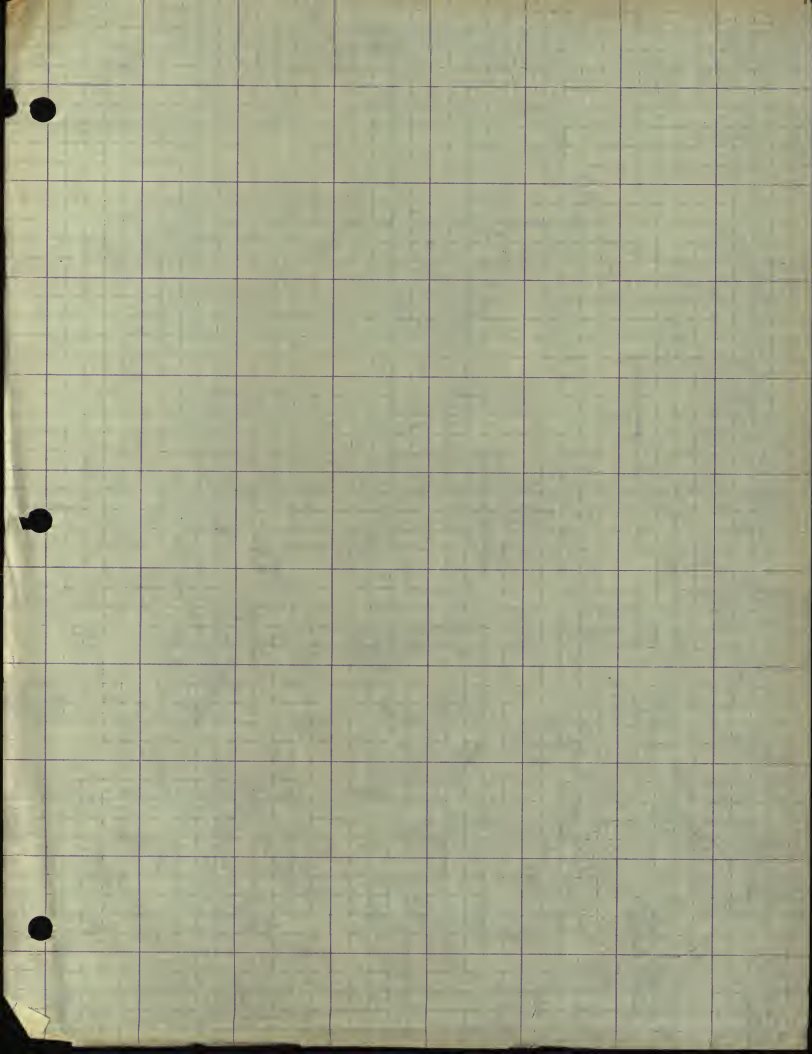
SECTION	25 Cont.
Observer's Seat	
Flare System II	
Attendants' Seat	
Passenger Double Seat with Table	
Passenger Double Seat - Luxury	
Passenger Triple Seat - Luxury	
Passenger Triple Seat Tourist	
Emergency Exit Escape Rope Installation	
Control Cabin Bulkhead Equipment Location	
Overhead Rack	

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
[illegible]



Terminal servicing arrangement,
galley water


BODY:

ELR 150628 & 150629 6-24-57



MODEL	707	517-2-57 DWG. REC. CLK.
DRAFTED	G. BERESFORD 6/3/7	517-2-57 RELEASE
CHECKED	JRGIBBONS 6/22/7	7-5-2-43 B/P GROUP
STRESS		HUFFMAN 6-3380 REQUESTED
APPROVED		
APPROVED	Carton 6/24/57	PROD. INFO.

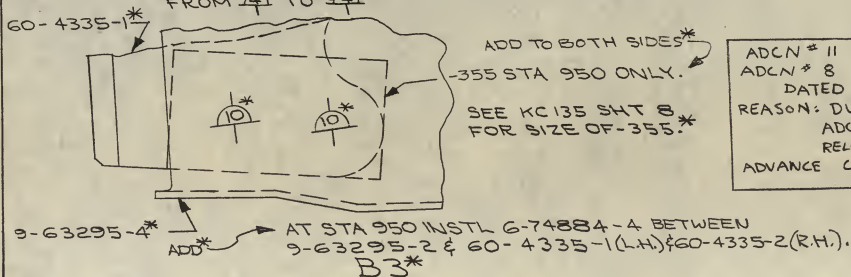
BOEING AIRPLANE COMPANY
ADVANCE DRAWING CHANGE NOTICE
 THE DWG WILL BE CHANGED TO INCLUDE THIS ADN
☐ DEVIATION ☒ VARIATION
 REASON: TO ALLOW PROPER
 INSTL OF PARTS.

BEAM INSTL REEL	
DWG. TITLE	STA 820-960
ADCN	DRAWING NO.
ISSUE NO.	95000
CHG. NO.	43
SEC. NO.	15
1-1999	11
CHG. EFF.	

PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
NEW	✓	2	-355	FILLER	A4	.091 x 1.3 5A x 2.3				F-230 R

SHT 102 ADD TO P/L AS SHOWN ABOVE:

SHT 5A ADD NOTE & FILLERS TO VIEW B3 ZN A3 AS SHOWN
 BELOW: CHG ALL OTHER VIEWS TO AGREE.
 IN ZN C5 & D5 CHG RIVET SYMBOLS COMMON TO -3134 & -3142
 FROM  TO 



ADCN # 11 REPLACES
 ADCN # 8 SHT 102
 DATED 6-24-57
 REASON: DUPLICATE
 ADCN NUMBERS
 RELEASED
 ADVANCE COPIES ONLY

 APL # 1 & 2 COMPLETED SATISFACTORILY.
 NEW PLNG REQD

*ADCN REF ONLY.

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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BODY

1-20 57

MODEL 707	7-7-8-5 DWG. REC. CLK 7-7-9-57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DRAWING WILL BE CHANGED TO INCLUDE THIS ACTION <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: PART MUST BE INSTALLED WITH WET PRIMER	A	BEAM INST KEEL DWG. TITLE STA 820-960			
DRAFTED RUTH VEWER 6-28-7	RELEASE 7-7-7-0 S/P GROUP		ISSUE NO. PRR 95000	ADCN 53	DRAWING NO. 5-86387	SHT. 1A	
CHECKED R Short 6-29-7	REQUESTED		CHG. NO.	SEC NO. 4-3	23	5-86387	8A
STRESS	PROD. INFO.						
APPROVED							
APPROVED Bailey 7-1-57			1-1999				
			CHG. EFF.				

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
3-35			-183						F-12.41	
3-35			-184						F-12.41	
5-26			1 90-3273-2000 X 90-3273						F-2115	

CHG P/L AS SHOWN ABOVE

SHT 1A
SHT 8A

IN ZN AIR CHG CALLOUT AS SHOWN:

90-3273-2000

~~90-3273~~

▷ APL 001 & ON MUST COMPLY

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS			PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO
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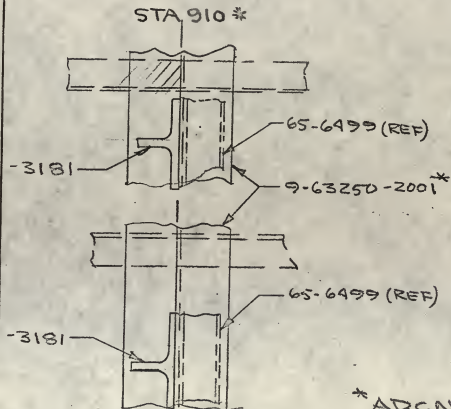
BODY

5-10017

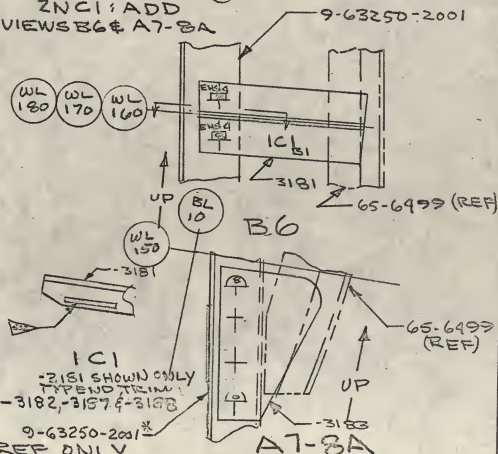
MODEL 707		816-28-571 DWG. REC. CLK		BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DRAWING WILL BE CHANGED TO INCLUDE THIS ACTION <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION		B		BEAM INSTL-KEEL	
DRAFTED DAVE WELSH		5-29-57 RELEASE 6-28-57				ISSUE NO.		STA 820-560	
CHECKED Schriener 6-19		S/P GROUP 6-7000		PRC 10660		ADCN 14		DRAWING NO. 5-86387	
STRESS		Boby REQUESTED		CHG. NO.				SHT. 9A	
APPROVED				SEC NO. 42					
APPROVED		PROD. INFO.		2-1999					
				CHG. EFF.					
PARTS LIST ZONE		REPLACES		RECD		PART NUMBER		NOMENCLATURE	
						ZONE CODE		STOCK SIZE (APPROX. NET)	
						MATERIAL		HEAT TREAT	
						FINISH		P	

ADCN

STICKER VIEW ③
 ZONE A6 ADD -3181
 & 65-6499 (REF)



STICKER VIEW ②
 ZNC1; ADD
 VIEWS B6 & A7-8A



AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS				PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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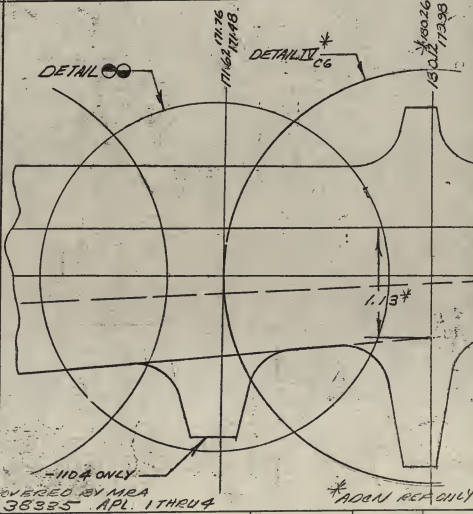
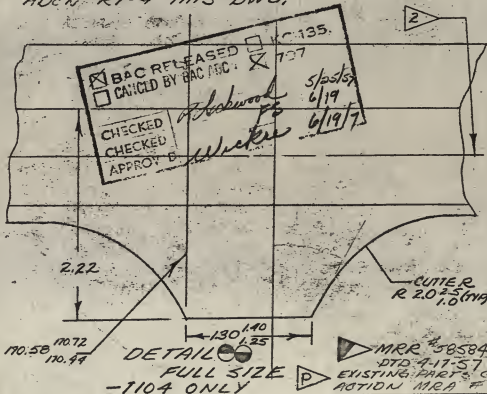
1-75 17

MODEL 707	DWG. REC. CCK 7-1-57	BOEING AIRPLANE COMPANY <h1 style="margin: 0;">ADVANCE DRAWING CHANGE NOTICE</h1> <p style="font-size: small;">THE DWG. WILL BE CHANGED TO INCLUDE THIS ADON <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION</p> <p>REASON: E.D. NEEDED ON KEEL BEAM AT STA 1091.5</p> <p style="text-align: right;">(ENGR. ERROR)</p>	A	CHORD-KEEL BEAM BODY STA 960-1140
DRAFTED R. PARKINS	4-18-57	RELEASE 7-1-57 M.B.	ISSUE NO. PER 95000	DWG. TITLE
CHECKED P. Baker	4-14-57	B/P GROUP	CHG. NO.	ADCN
STRESS Baker	4/22	REQUESTED	SEC. NO. 46	DRAWING NO. 50-5331
APPROVED		PROD. INFO	1-1999	SHT. —
APPROVED W. Baker	4-25-57		CHG. EFF.	

PARTS LIST	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
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ADD TO FID CALLOUT AND DETAIL
 TAB ADDED AT THIS LOCATION ON
 -1104 ONLY

THIS ADON NOT COMPLETE WITHOUT
 ADCN RY-4 THIS DWG.



AIRP. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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ADON 2

07-164

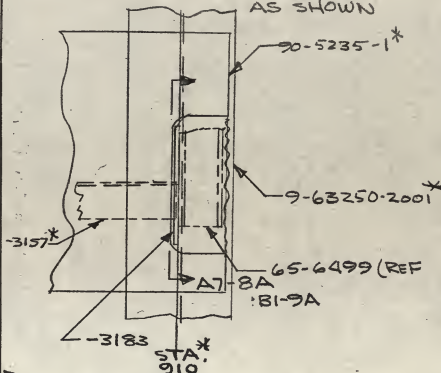
BODY

5-951T

MODEL 707	DATE 5/2/57	5716-28-57 DWG. REC. CLK	BOEING AIRPLANE COMPANY		B	BEAM INSTL - HEEL STA 820-960		
DRAFTED DAVE WELSH	5/2/57	5716-28-57 RELEASE	ADVANCE DRAWING CHANGE NOTICE		ISSUE NO.	ADCN	DRAWING NO.	
CHECKED Schrier	6-19	6-28-57 B/P GROUP	NEITHER WILL BE CHANGED TO INCLUDE THIS ADEN		PRE 10660	19	5-86387	
STRESS Boots	6/20	6-7000 BODY REQUESTED	<input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION		CHG. NO.			
APPROVED [Signature]	4/4	D	REASON: TO ACCOMMODATE WHEEL WELLGUIDE INSTL.		SEC. NO. 43			
APPROVED [Signature]	6/5/57	PROD. INFO.			2-1999 CHG. EFF.			
PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT
								FINISH
								P

STICKER VIEW ①

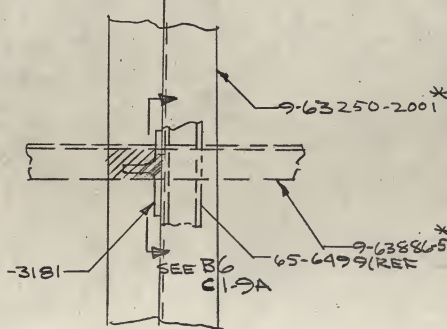
ZONE B6: ADD -3183 &
65-6499 (REF)
AS SHOWN



D ASSY PLNG AFFECTED

STICKER VIEW ②

ZONE C6: ADD -3181 &
* 65-6499 (REF)
STA 910



*ADCN REF ONLY

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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BODY

1-125-17

MODEL 707	52557	SWG 6-25-57 DWG REC CLK L711/1157	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE <small>THE DWG WILL BE CHANGED TO INCLUDE THIS ADEN</small> <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: TO ACCOMMODATE WHEEL WELL GUIDE INSTL.		A	BEAM INSTL-KEEL STA 820 - STA 960		ADCN	
DRAFTED		RELEASE 71-57 148	ISSUE NO.		DWG TITLE	ADCN	DRAWING NO.		SHT
CHECKED <i>Schneider</i>	6-19	S/P GROUP 6-7800	PRR 10660		47	5-86387	1A		
STRESS <i>2 Cor. Cor</i>	4/22	BODY REQUESTED	CHG. NO.						
APPROVED <i>[Signature]</i>	9/24		SEC NO. 43						
AS APPROVED <i>[Signature]</i>	9/25	PROD. INFO.	2-1999						
			CRG EFF.						

PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
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1-59	▷ X 14		-3058	ANGLE STIFFENER						
1-56	▷ X 14		-3055	ANGLE STIFFENER						
1-57	▷ X 14		-3056	ANGLE STIFFENER						
2-72	▷ X 14		-2075	STIFFENER						
2-73	▷ X 14		-2076	STIFFENER						

-3055	▷ 1	-3175	ANGLE STIFF	BA AND 10134 GA -1407x15.0	▷	- SRF -2.30	S
-3056	▷ 1	-3176	ANGLE STIFF	CA AND 10134 GA -1407x15.2	▷	-	S
-2075	▷ 1	-3177	STIFF	B5 AND 10134 GA -1407x14.3	▷	-	R
-2076	▷ 1	-3178	STIFF	C5 AND 10134 GA -1407x14.4	▷	-	R
-3058	▷ 1	-3179	ANGLE STIFF	C3 AND 10134 GA -1407x14.3	▷	- SRF -2.30	S

▷ AIRP 1 ONLY

▷ AIRP 2 THRU 1999

SEE ALSO ADCN 8 ON SHT 102 & ADCN 10 ON SHT 11A

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO
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BODY

1-20 4T

MODEL 707		51-28-52 DWG. REC. CLK 6X 7/11/57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG. WILL BE CHANGED TO INCLUDE THIS ACTION <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: TO ACCOMMODATE WHEEL WELL GUIDE INSTL.		BEAM INSTL-KEEL STA 820-STA 960		DWG. TITLE				
DRAFTED DAVE WELSH	5/25/57	RELEASE 7-137-AB			ISSUE NO. PRR 10660	ADCN 8	DRAWING NO. 5-86387	SHT 102			
CHECKED <i>Schwieser</i>	6/7	B/P GROUP 6-7000 BODY REQUESTED			CHG. NO. 43	10	5-86387	11A			
STRESS <i>B. Grover</i>	4/20				SEC. NO. 2-1999						
APPROVED <i>[Signature]</i>	4/21	PROD. INFO.	CHG. EFF.								
PARTS LIST ZONE	REPLACES	3000	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
	NEW		3	-3181	TEE	A7	ALC AND 10135 9A 2003 x 4.1		-	SRF -2.30	S
	NEW		3	-3182	OPP -3181						
	NEW		4	-3183	GUSSET	A6	8A .10 x 4.0 x 2.6		-	SRF -2.115	S
	NEW		2	-3184	GUSSET	A7	6A .10 x 4.1 x 2.4		-	SRF -2.115	S
	NEW		2	-3185	GUSSET	C6	9A .10 x 2.5 x 3.8		-	SRF -2.115	S
I-10			1	-3125	TEE STIFFENER						
	NEW		1	-3186	TEE STIFFENER	A3	ALTERN AND 10136 6A -2405 x 4.0		-	SRF -2.30	S
	NEW		1	-3187	TEE	A6	AND 10135 6A 2003 x 5.2		-	SRF -2.30	S
	NEW		1	-3188	OPP -3188						
	NEW		1	-3189	FILLER	C2	4A .10 x 1.0 x 1.0		-	SRF -2.115	T
ON SHT 102 CHG P/L AS SHOWN ABOVE											
AIRP 2 THRU 1999 AIRP 10 ONLY											
ON SHT 11A CHG P/L AS SHOWN BELOW											
			✓	12	BAGRISAY-B-4 RIVET, HI-SHEAR, FLAT HD						
			✓	4	BAGRISAY-B-7 RIVET, HI-SHEAR FLAT HD						
			✓	16	HS15-8 COLLAR, HI-SHEAR (BAC-630C-B)						
	NEW		✓	3	AN5-7A BOLT						
			✓	8	H10-52A NUT						
			✓	2	AN960D516 WASHER						
	NEW		✓	5	AN5-6A BOLT						
AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS				PART NUMBER	RELEASE COLUMN IND	DWG. SHEET NO.	

BODY

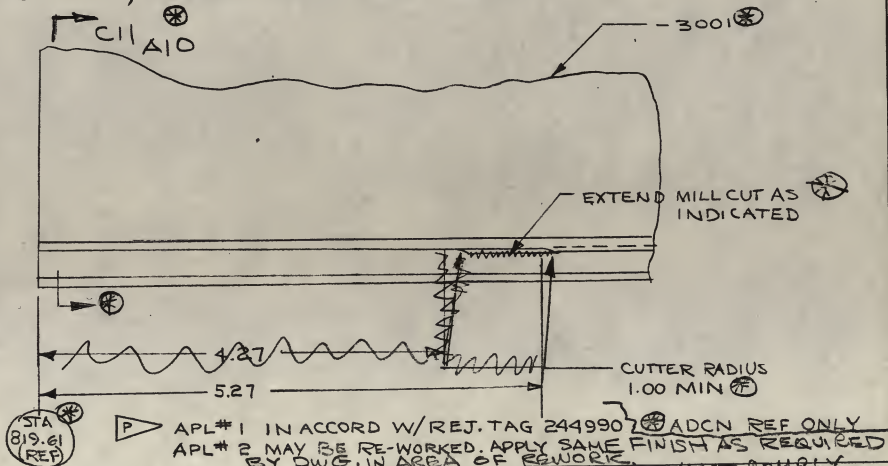
1-90

(SEE REJ TAG# 244990)

MODEL 707	CF ROBINSON	6-17-57	7-1-57 DWG. REC. CLK	BOEING AIRPLANE COMPANY	A	CHORD-LWR KEEL BEAM		
DRAFTED	6-17-57	7-1-57 MB	RELEASE	ADVANCE DRAWING CHANGE NOTICE	ISSUE NO.	DWG. TITLE	ADCN	DRAWING NO.
CHECKED	6-17-57	6-4-57	7-1-57 MB	THE DWG WILL BE CHANGED TO INCLUDE THIS ADON	CHG. NO.	11	5-86538	2A
STRESS	6-17-57	6-4-57	6-4-57	<input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION	SEC. NO.	43		
APPROVED	6-17-57	6-4-57	6-4-57	REASON: EXTEND MILL CUT TO ALLOW INSTL. OF 50-3170 FAIRING (REF)	SAME AS DWG.			
APPROVED	6-17-57	6-4-57	6-4-57		CHG. EFF.			

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
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IN ZONE C11, CHANGE DIM AS SHOWN BELOW:



AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN / IND	DWG SHEET NO.
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FUEL SYSTEMS

MODEL	707	427-1-57
DRAFTED	SCHNELLE	7-1-57
CHECKED	Bohner	6/20/57
STRESS		
APPROVED	Bohner	6/20/57
APPROVED	Bohner	6-21-57

BOEING AIRPLANE COMPANY	
ADVANCE DRAWING CHANGE NOTICE	
THIS DRAWING WILL BE CHANGED TO INCLUDE THE ADDN	
<input type="checkbox"/> DEVIATION	<input checked="" type="checkbox"/> VARIATION
REASON:	
TO PROVIDE CLASS	
FIT FOR HELI-COIL	
THD	

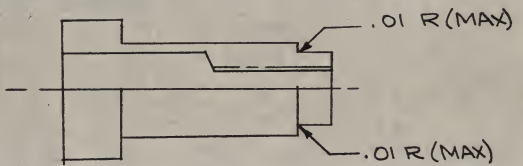
ADAPTER WATER FILL & DRAIN VALVE DWG TITLE ASSY OF		
ISSUE NO.	ADCN	DRAWING NO.
CHG. NO.	1	66-4350-
SEC. NO.	41	
DWG		
CHG. EFF.		

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX NET)	MATERIAL	HEAT TREAT	FINISH	P
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IN DWG NOTE
CHG -

DRILL - - - ADD*
TAP 10-32 NF 2B HELI-COIL - - -

IN GEN NOTES ADD- FILLET RADII .03 (EXCEPT AS NOTED)



ELR# 164825 HUNGATE 6-4510 (6-11-7)

NO PARTS MADE

*ADCN REF ONLY

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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MODEL 707
R. HOLLENBECK
DRAFTED

5-27-57

CHECKED *VONK*
6-8

STRESS

APPROVED *[Signature]*
6-70

APPROVED

27678-5
DWG. REC. CLK
6266-19-57
RELEASE
6-20-57 (6)
B/P GROUP
REJ. TAG
137 072
REQUESTED

THE DRAWING WILL BE CHANGED TO INCLUDE THIS ACTION
☐ DEVIATION ☒ VARIATION

REASON:
JOGGLES NOT REQUIRED OVER
EXTENDED REF. DOUBLER

PROD. INFO.

BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE

1-20 2T

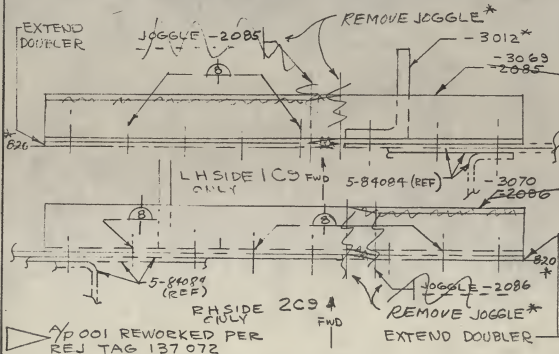
A

BEAM INSTALLATION
KEEL
BODY STA. 820-820
DWG. TITLE

ISSUE NO.	ADCH	DRAWING NO.	SHT.
95,000	23	5-86386	1A
CHG. NO.			
43	14	5-86386	5A
SEC. NO.			
1 THRU 1959 CHG. EFF.			

PARTS LIST ZONE	REPLACES	5-86386 -3000	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
4-65				-2085	ANGLE, STIFF						
4-66				-2086	OPP -2085						
	-2085			-3069	ANGLE, STIFF	C10 SA	ALTER AND 10134-1205			REF 2.30	S
	-2086			-3070	OPP -3069						

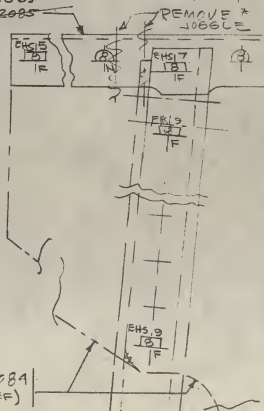
IN ZONE C9 REPLACE -2085 WITH -3069 & -2086 WITH -3070, & ADD REF DOUBLER AS SHOWN:




IN ZONE C9 & C9 CHG IND. CALOUT & REMOVE JOGGLE AS SHOWN. REVISE DOUBLER ON 5-84084 (REF)

*ADCN REF

5-84084 (REF)



AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS				PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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MODEL 707		576-18-57 DWG. REC. CLK		<div style="text-align: center;">  <p>BOEING AIRPLANE COMPANY</p> <p>ADVANCE DRAWING CHANGE NOTICE</p> <p>THE DWG WILL BE CHANGED TO INCLUDE THIS ACTION</p> <p><input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION</p> <p>REASON: FILLER REQD BETWEEN KEEL BEAM STIF & BHD WEB</p> </div>		A		BEAM INSTALLATION BODY KEEL DWG. TITLE STA 620-820				ADCN	
R. HOLLENBECK DRAFTED		6-6-57 RELEASE 6-20-57 CB				ISSUE NO. 95,000		ADCN		DRAWING NO. 24 5-86386			SHT. 1A
CHECKED VONK		6-8-57 B/P GROUP REL TAG 137072 REQUESTED				CHG. NO.							
APPROVED		6-10-7				SEC NO. 43							
APPROVED		PROD. INFO.				1 THRU 1999 CHG. EFF.							
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P			
	-3000												
NEW	-3028	L	2	-3068	FILLER	B1 10A .125	22	-	F-2.115	T			
		L	2	-3071	FILLER	B1 10A .050X10X2.15	22	-	F-2.115	T			
	-3025	L	1	-3073	ANGLE	B1 10A BAC 1503-	10	-	F-2.30	R			
	-3026	L	1	-3074	OPP -3073	10A 1062							
5-20				-3025									
5-21				-3026									
5-23				-3028									
NEW		L	13	ALPPH-T6-3	BOLT-LOCK FAN HEAD		503						
					(BAC-B30AL-6-3)								
9-51		L	1	75 LC-C6	COLLAR								
				62									

CHG & ADD TO P/L AS SHOWN:

REF ADCN 8 SHT 10A

REF. ADCN 11 ON SH 3A
& ADCN 8 ON SH 10A

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
				64510 6-12-7		27000		

BODY

7-64 1T

MODEL 707		DWG. REC. CLK 6-18-57		BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG. WILL BE CHANGED TO INCLUDE THIS ACTION <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: TO ALLOW MATERIAL OPTION		SPICE PLATE-KEEL		BEAM CHORD STA 960		ADCN	DRAWING NO.	SHT.									
DRAFTED A. PONKE		RELEASE 6-18-57				ISSUE NO. 95000		CHG. NO. 1					69-4614		-						
CHECKED <i>Switzer</i>		S-31		B/P GRDUP PETERSON 6-7000		SEC. NO. 46		1-1999													
STRESS				REQUESTED		CHG. EFF.															
APPROVED <i>P. Bura</i>		5/5/57		PROD. INFO.																	
APPROVED <i>Latong</i>																					
PARTS LIST ZONE		REPLACES		REQD		PART NUMBER		NOMENCLATURE		ZONE CODE		STOCK SIZE (APPROX. NET)		MATERIAL		HEAT TREAT		FINISH		P	

SPICE PLATE
OPP-1

REVISE P/L AS SHOWN ABOVE

REVISE GEN NOTES AS SHOWN BELOW
ADD TO READ

2 4140 STEEL, MIL-S-5626 ANNEALED,
4340 STEEL, MIL-S-5000 ANNEALED OPT,
~~69-4615~~

REVISE 3 TO: 'MAKE FROM 69-4615-1, BAR STOCK OPT.'

ADD 4 'MAKE FROM 69-4615-2, BAR STOCK OPT.'

P NO PARTS MADE
B/S PLANNING IN ACCORD.

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS				PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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A
D
C
N

116-13-7 8-7000

BODY

7-69

1T

MODEL 707	7/2/57	6-17-57 DWG. REC. CLK 5/16/58-57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ADDN <input type="checkbox"/> DEVIATION, <input checked="" type="checkbox"/> VARIATION REASON: MATL. CHG. REQUIRED FOR HEAT TREAT		ISSUE NO. 95000	SPLICE PLATE -KEEL BEAM CHORD STA 960 DWG. TITLE		
DRAFTED A. PONKE	529	RELEASE 6-18-57 (C)			CHG. NO.	ADCN	DRAWING NO.	SHT.
CHECKED <i>Schwartz</i>		PETERSON 6-7000			SEC. NO. 46		69-4613	-
STRESS		REQUESTED			1-1999			
APPROVED <i>P. Bana</i>	4/5/57	PROD. INFO.			CHG. EFF.			
APPROVED <i>P. Bana</i>								

PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
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- -1 SPlice PLATE
 - -2 OPP -1
 REVISE P/L AS SHOWN ABOVE

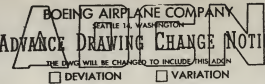
REVISE GEN NOTES AS SHOWN BELOW:

- 2 ~~4130 STEEL MIL-S-6758 ANNEALED~~
 '4140 STEEL, MIL-S-5626 ANNEALED
 4340 STEEL, MIL-S-5000 ANNEALED OPT' } ELR 161199
 -69-4615
 3 'MAKE FROM 69-4615-1, BAR STOCK OPT.'
 4 'MAKE FROM 69-4615-2, BAR STOCK OPT.'

P NO PARTS MADE
 B/S PLANNING IN ACCORD

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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1-20 2T

MODEL 707		DWG. REC. CLK. RX 7/16/57		 <p>BOEING AIRPLANE COMPANY SEATTLE 1, WASHINGTON</p> <p>ADVANCE DRAWING CHANGE NOTICE</p> <p>THIS DRAWING WILL BE CHANGED TO INCLUDE THIS ADDN <input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION</p> <p>REASON: TO ADD SKYDEOL RES FINISH FOR 707-320</p>		CHORD-KEEL BEAM STA 820-870		DWG. TITLE		SHT.											
DRAFTED H. MITCHELL 7/5/57		RELEASE 7-16-57 EC				ISSUE NO.		ADCN		DRAWING NO.		SHT.									
CHECKED R. Keller 7/5/57		B/P GROUP BODY GP				ITEM CHG. NO. 4381		5		9-63874		1									
STRESS R. Keller 7/5/57		REQUESTED				SEC. NO. 43		6		9-63374		2									
APPROVED P. Magowan 7-5-7		PROD. INFO		2001 FON																	
APPROVED R. Keller 7-9-7																					
PARTS LIST ZONE		REPLACES		REQD		PART NUMBER		NOMENCLATURE		ZONE CODE		STOCK SIZE (APPROX. NET)		MATERIAL		HEAT TREAT		FINISH		P	
NEW				-		-2000		CHORD				2		1		-		2.31			

ADCN

ADD TO P/L AS SHOWN:
SHT. 1


SHT. 2
IN ZN A3

ADD TO CALLOUT AS SHOWN:

IN ZN A2

* 9-63874 ———

9-63874-2000 ———



CHG NOTE TO READ:
FINISH SRF-2.31 THIS DISTANCE (*-3000 & -2000 ONLY)

* ADCN (REF)



-2000 IS IDENTICAL TO 9-63874 EXCEPT FOR FINISH

Aug-12-7

8-20 51

MODEL	707		217-11-57	BOEING AIRPLANE COMPANY SEATTLE 14, WASH-INGTON		BEAM INSTALLATION KEEL		DWG. TITLE		STATION 820-960		A D N 70
DRAFTED	A.B. BARNES	6-21-57	DWG. REC. CLK.	ADVANCE DRAWING CHANGE NOTICE RE: DWG WILL BE CHANGED TO INCLUDE THIS ADCH <input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION		ISSUE NO.	ADCN	DRAWING NO.	SHT.			
4			RELEASE			PRR 10003-4	49	5-86387	1A			
CHECKED	C.A. KOON	6-22-57	7-15-57 L.B.			CHG. NO.	9	5-86387	102			
STRESS			B/P GROUP	6-7000	SEC. NO.	43						
STANDARDS			REQUESTED	6-7000	REASON: LARGER INTERCONNECT REQUIRED		1-1999					
APPROVED	<i>[Signature]</i>	6/27/7	PROD. INFO.	<input checked="" type="checkbox"/>			CHG. EFF.					

PARTS LIST ZONE	REPLACES		REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
	SHEET 1A	-3000									
3-13			✓	1	66-1862-1	CHANNEL					
	66-1862-1		✓	1	66-4879-1	CHANNEL					
3-14			✓	1	66-1862-2	OPF 66-1862-1					
	66-1862-2		✓	1	66-4879-2	OPF 66-4879-1					
	SHEET 102										
2-30			X✓	16 8	4630H-02	NUT-PLATE (BACN10EN-3)					
1-11			✓	2	3126	DOUBLER					
	-3126		✓	2	69-4848	FITTING					
2-37			X✓	28 20	AN520DD-109	SCREW - MACHINE					

CHANGE P/LAS SHOWN ABOVE

FOR PICTURE CHANGES SEE ADCN 21
ON SHEET 8A

▶ 1 THRU 199 & 301 THRU 1999

* SCRAP EXISTING PARTS

WORK PRESS. PSI	NUMBER	REQD	NUT	SLEEVE	REQD	ZONE	SHT	TUBE OD	WALL THICK	MATERIAL	HEAT TREAT	FINISH	TUBING IDENTIFICATION	TYPE ENDS	MIN STOCK LGTH
	TUBE ASSY		END FITTINGS PER TUBE ASSY			ZONE CODE									

MODEL 707

DRAFTED DOUG PRATT 3-21-7

CHECKED *J. R. Ricks* 4/3/57

STRESS H. E. Bryant 4/5/57

APPROVED *J. R. Ricks* 4/10/57APPROVED *J. R. Ricks* 4-7-7

B7, 4-15-57
 DWG. REC. CLK.
 6-1-15-57
 RELEASE
 4-15-57
 6-1-15-57
 B/P GROUP

M. FALCONER
 6-7000
 REQUESTED

PROD. INFO.

BOEING AIRPLANE COMPANY

ADVANCE DRAWING CHANGE NOTICE

THIS DRAWING WILL BE CHANGED TO INCLUDE THIS ACTION

☐ DEVIATION☒ VARIATION

REASON: TO MAKE DRAWING
 APPLICABLE FOR A/P
 1-1939

CHORD-KEEL BEAM BODY STA 960-1190		
DWG. TITLE		
ADCN	DRAWING NO.	SHT.
46621	3	50-5331
CHG. NO.	5	50-5331
SEC. NO. 46		
1-499		
601-1999		
CHG. EFF.		

PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
	NEW	-	-3	OPP-1103						

IN P/L ADD -3 AS SHOWN ABOVE.

IN ZONE B7 UNDER "PLAN VIEW" ADD: "-3 OPP-1103"

IN ZONES BZ & B-7 ADD: "-3 OPP"

REPLACES ADCN 3

REASON: TO REMOVE -2
 FROM P/L & CHANGE
 CALL OUT -1 TO -1103

DRAFTED: G. McDONALD 6/15/57

CHECKED: *F. J. Ricks* 6-18-7APPD BY: *Wickie* 6/19/57

REQD' SHERSON 6-7000

PROD INFO: DWG. CLARIFICATION ONLY

IN TAB. BLOCK CHG ENTRIES AS SHOWN BELOW:

46	1	50-7933	707	1-1999	50-5331-2			
46	X	50-7933	707	1-1999	50-5331-103			
AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.

MODEL	707	7-12-57
DRAFTED	R. PARKINS	4-18-57
CHECKED	<i>Bohach</i>	4-19-57
STRESS	<i>Bohach</i>	4-22
APPROVED	<i>Bohach</i>	4-25-57
APPROVED	<i>Bohach</i>	4-25-57
BOEING REC. CLK.	247-15-57	7-13-57
RELEASE		
B/P GROUP	RYAN	
REQUESTED		
PROD. INFO.		

BOEING AIRPLANE COMPANY
ADVANCE DRAWING CHANGE NOTICE
 THE DWG WILL BE CHANGED TO INCLUDE THIS ADGN
☐ DEVIATION ☒ VARIATION
 REASON: AFT END OF PART
 DOES NOT AGREE WITH
 50-8272 FRAME INSTL.
 STA 1140 (ENG. ERROR)

ISSUE NO.	PRR 95000	ADCN	DWG. TITLE	CHORD-KEEL BEAM BODY STA 960-1140
CHG. NO.		ADCN	DRAWING NO.	RY-4 50-5331
SEC. NO.	76			
1-1999				
CHG. EFF.				

PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
			-1	CHORD-KEEL BEAM						
			-2	OPP-1						
	-1		-1103	CHORD-KEEL BEAM		BAC 1506-1115 X221.7 (ALTER)	7075-T6 EXTL 69-A-27775 TEMP.		3	R
	-2		-1104	OPP-1103 EXCEPT AS SHOWN						

CHANGE P/L AS SHOWN ABOVE
 AT ZONE B4 CHANGE END
 OF PART AS SHOWN

AT ZONE B3 CHG:

50-5331 - 1 - 2 OPP
 50-5331-1103, 1104 OPP

AT ZONE B3 GEN NOTES

DELETE THIS IS A COMPUTED
 LENGTH OF PART CHECKS

AT ZONE C3 & C7 CHANGE - 2 TO -1104

AT ZONE A7 CHANGE: - 2 OPP EXCEPT AS SHOWN
 - 1104 OPP EXCEPT AS SHOWN

PARTS FABRICATED COVERED BY
 MRA ACTION. MRA # 22098 1/10 THRU 4

REF. THIS ADGN NOT COMPLETE WITHOUT
 ADGN RY-5 THIS DWG.

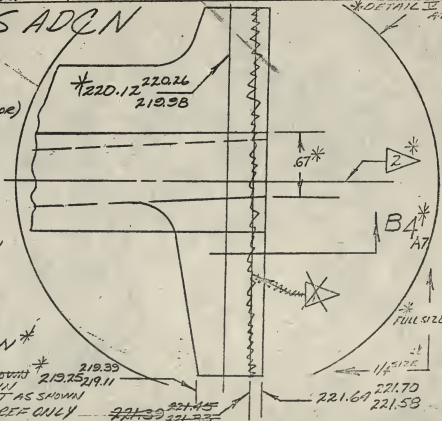
☒ BAC RELEASED ☐ KC-135
☐ CANCELED BY BAC ADGN ☒ 707

CHECKED
 CHECKER

Stickwood
F.S.
6/19

PLAN VIEW*

- 1 AS SHOWN 219.39
 - 2 EXCEPT AS SHOWN 219.75 219.11
 - 1103 AS SHOWN
 - 1104 EXCEPT AS SHOWN
 * ADGN REF ONLY 221.39 221.45 221.69 221.70 221.53



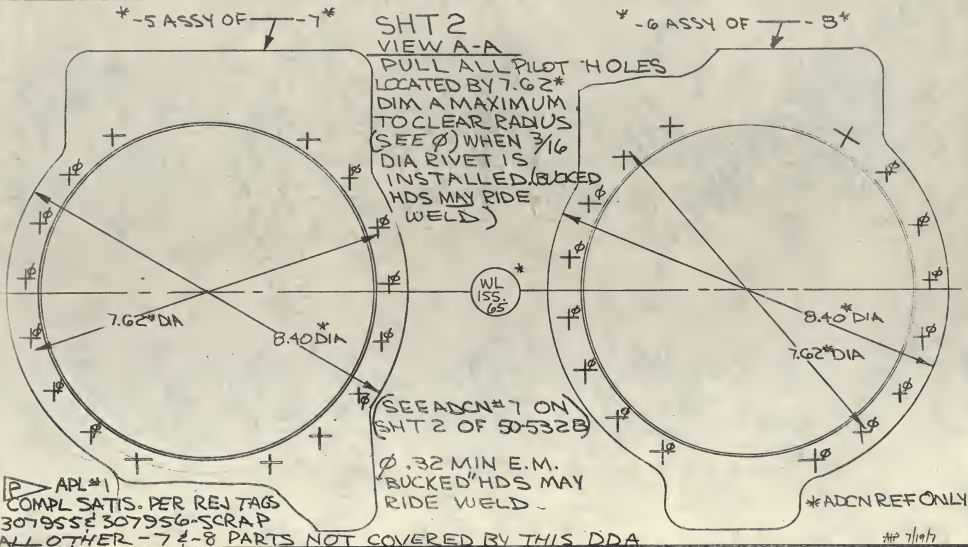
AIRP. SEC. NO.	QTY. AIRP.	APPROVED BY DWG. NO.	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.

BODY

6.80

REJ TAGS 307955E 307956

MODEL 707		DWG REC CLK 20-22-57		BOEING AIRPLANE COMPANY SEATTLE 14, WASHINGTON DRAWING DEPARTURE AUTHORIZATION THE DWG WILL NOT BE CHANGED REASON: FASTENERS FALL ON EDGE OF WELD.				ISSUE No. 43		SHOULD INSTL WATER INJECTION TANK STA 860-960	
DRAFTED KANA, STEWART 7-10-57		RELEASE 20-22-57						SEC. No.		DWG TITLE	
CHECKED J. ROTTER 7-15-57		SHIP UNIT						95000		DDA No.	
STRESS		REJ TAG REQUESTED						CHG. No.		DRAWING No.	
APPROVED <i>[Signature]</i>		PROD INFO		UNITS 1-17							
APPROVED		SHOP INFO									
APPROVED		DCR No.									
PARTS LIST ZONE		REPLACES		REQD.		PART NUMBER		NOMENCLATURE		ZONE CODE	
										STOCK SIZE (APPROX. NET)	
										MATERIAL	
										FINISH	
										HEAT TREAT	
										P	



MODEL 707		D17-18-57 DWG REC CLK		BOEING AIRPLANE COMPANY SEATTLE 14, WASHINGTON DRAWING DEPARTURE AUTHORIZATION THE DWG WILL NOT BE CHANGED REASON: LARGER INTERCONNECT REQUIRED				PRE 10003-4 ORDER NO.		BEAM INSTALLATION KEEL STATION 820-560									
DRAFTED A.B. BARNES		EN 7/19/57 RELEASE						SEC NO. 43		DWG TITLE DDA NO.		DRAWING NO.							
CHECKED C.A. KOON 6-23-57		B/P UNIT 7-19-57 REQUESTED 6-7000								7		5-86387							
STRESS		PROD INFO																	
STANDARDS		SHOP INFO																	
APPROVED		DCR NO.																	
APPROVED																			
PARTS LIST ZONE		REPLACES		REQD.		PART NUMBER		NOMENCLATURE		ZONE CODE		STOCK SIZE (APPROX.)		MATERIAL		HEAT TREAT		FINISH	

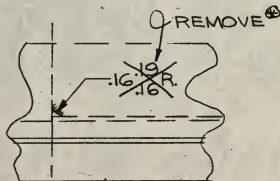
SEE DDA DRAWING 69-5371 SHTS 1 & 2

BODY

2.70

MODEL 707	7-18-57 DWG. REC. CLK.	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ADDN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: TO ALLOW BASE STEP CUT TO BE MADE ON SPAR WILL &. TO ELIMINATE ADDITIONAL TOOLS		CHORD-LOWER KEEL BEAM, STA 820 DWG. TITLE TO 960						
DRAFTED R. Atkinson	9-27-57 RELEASE			ISSUE NO. PRR95000	ADCN 1	DRAWING NO. 65-4788	SHT. 1			
CHECKED R. Atkinson	7/13/57 S/P GROUP	SEC. NO. 43								
STRESS	REQUESTED	SAME AS								
APPROVED	PROD. INFO.	DWG								
APPROVED Brichly	7-15-57	CHG. EFF.								
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P

CHANGE DWG, CHANGE & ADD CALLOUTS AS SHOWN BELOW:

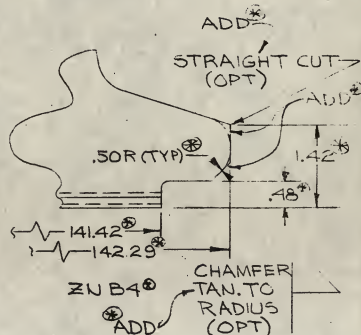
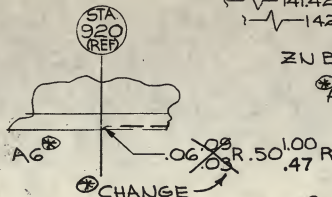


STA 920 (REF)

B11 ZNDG

ULERY, 6-4510; ELR 161269,
6-26-57

NO PARTS MADE; PLANNING
HELD FOR CHANGE.



* ADCU REF ONLY

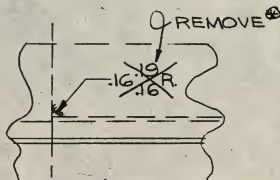
AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWS. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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BODY

2.70

MODEL 707	877-19-57 DWG. REC. CLK.	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ADDN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: TO ALLOW BASE STEP CUT TO BE MADE ON SPAR WILL & TO ELIMINATE ADDITIONAL TOOLS		ISSUE NO. PRR95000 CHG. NO.		CHORD-LOWER KEEL BEAM, STA 820 DWG. TITLE TO 960	
DRAFTED R. ATKINSON 7-9-57	927-19-57 RELEASE			ADCN	DRAWING NO.	SMT.	
CHECKED J. Schaeffer	7/13/57 S/P GROUP			1	65-4788	1	
STRESS							
APPROVED							
APPROVED Prichly	7-15-57 PROD. INFO.						
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL
							HEAT TREAT
							FINISH
							P

CHANGE DWG, CHANGE & ADD CALLOUTS AS SHOWN BELOW:

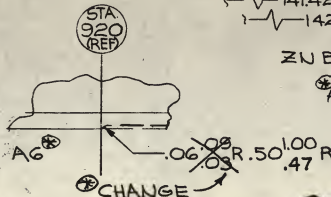


STA 920 (REF)

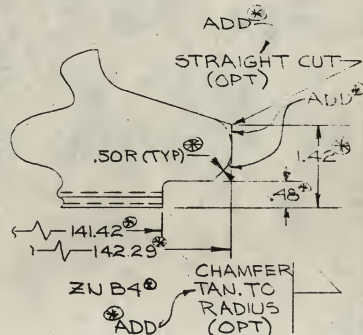
B11 ZND6*

▶ ULERY, 6-4510; ELR 161269,
6-26-57

▶ NO PARTS MADE; PLANNING
HELD FOR CHANGE.



CHANGE



ZNB4*

ADD

* ADCU REF ONLY

AIRP. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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MODEL 707		7-19-57 DWG REC CLK		BOEING AIRPLANE COMPANY				A		1-82 2T BEAM INSTL-KEEL											
DRAFTED <i>REVELIAN</i>		RELEASE 7-19-57		DRAWING DEPARTURE AUTHORIZATION				ISSUE No.		DWG TITLE STA 820-960		DDA No.									
CHECKED <i>Donalson</i>		9-24-57 EC		THE DWG WILL NOT BE CHANGED				CHK: No. KR 10003-S		DRAWING No.		14 5-86387 SHT 1A									
STRESS		B/P GROUP		REASON: WATER INJECTION				SHG: No.		SEC. No. 43		1 TAU 3									
APPROVED <i>Donalson</i>		REQUESTED 6-7000		LINES RE-ROUTED				CHG EFF													
APPROVED <i>Neim</i>		PROD INFO																			
APPROVED <i>Neim</i>		SHOP INFO																			
APPROVED <i>Neim</i>		ELR OR DCR																			
PARTS LIST ZONE		REPLACES		REQD.		PART NUMBER		NOMENCLATURE		ZONE CODE		STOCK SIZE (APPROX. NET)		MATERIAL		HEAT TREAT		FINISH		P	

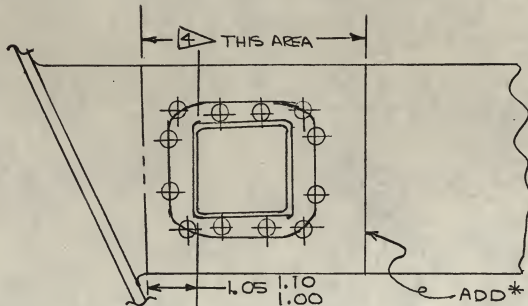
SEE DDA DWG 69-5542 SHT 1 & 2

WING

4-70

MODEL 707	277-19-57 DWG. REC. CLK 907-17-57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE RE CHG WILL BE CHANGED TO INCLUDE THIS ADCH <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION		FITTING VENT SPLICE WING DWG. TITLE BL 59.24					
DRAFTED SCHNELLE 7/10/7	RELEASE 7-19-57	REASON: LOCALIZE 80 FINISH AREA & LINE OMITTED		ISSUE NO. PRR 95000	DWG. NO. 1 65-6082				
CHECKED HEDSTROM 7/13/7	S/F GROUP			SEC. NO. 12					
STRESS	REQUESTED			SAME AS DWG					
APPROVED	PROD. INFO.			CHG. EFF.					
APPROVED Bailey 7-15-57									
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P

IN PLAN VIEW ZN C6 CHG AS SHOWN-



R ELR# 153700 WITMEIER
G-4510 (7-1-7)

P NO PARTS MADE
PLANNING AFFECTED

*ADCN REF ONLY

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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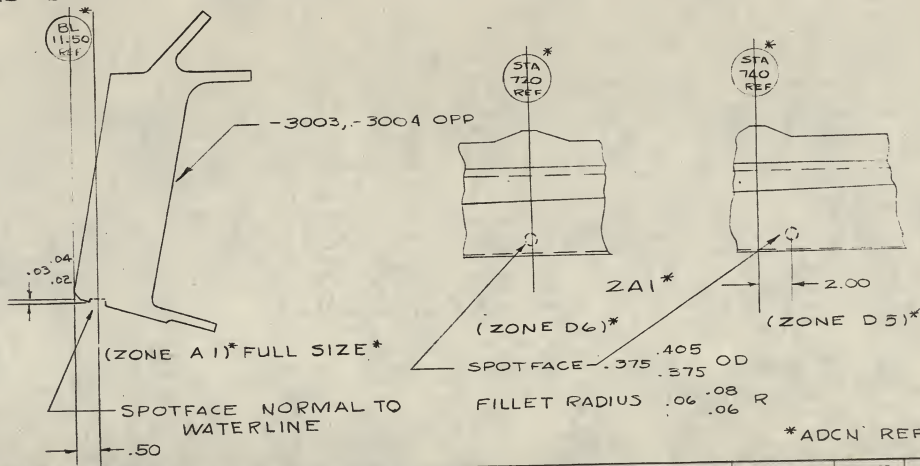
ADCN 7-18-7

BODY

2-60

MODEL 707	27-16-57 DWG. REC. CLK 807-16-57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWT WILL BE CHANGED TO INCLUDE THIS ADCN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: TO PERMIT ACCURATE FUEL LOADING		A ISSUE NO. PRR CHG. NO. 10856 SEC. NO. 43 1-1999 CHG. EFF.		CHORD-LOWER KEEL BEAM STA 620-820 DWG. TITLE ADCN DRAWING NO. BHT				
DRAFTED UNDERWOOD	7-3-7	RELEASE 7-10-57				10	5-89372			
CHECKED <i>W. J. Miller</i>	57	B/P GROUP 7-10-57					2A			
STRESS <i>B. J. Miller</i>	7/8/7	6-7000 BODY REQUESTED								
APPROVED <i>W. J. Miller</i>	7/11/7	PROD. INFO.								
APPROVED <i>W. J. Miller</i>	7/11/7									
PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P

ON SHEET 2A ADD SPOTFACES IN ZONES A1, D5 & D6 TO DRAWING AS SHOWN BELOW.



AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG. SHEET NO.
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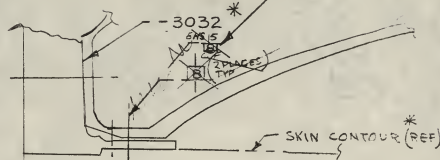
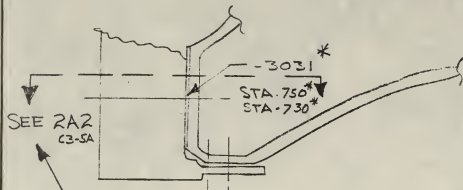
BODY

2-20 3T RT # 110902

MODEL 707		577-16-5 DWG. REC. CLK 577-16-5		BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ADCH <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: CONFLICTING & MISSING FASTENER CALLOUTS.		F		BEAM INSTALLATION KEEL			
DRAFTED TIM P. TAYLOR 7/1/7		RELEASE 7-16-57				DWG. TITLE BODY - TA 620-810		ADCN		DRAWING NO.	
CHECKED PARRINELLO 7-3-57		B/P GROUP				ISSUE NO.		CHG. NO. 95200		9 5-86386 10A	
STRESS		6-3580 REQUESTED				SEC. NO. 43		4 5-86386 4A		4A	
APPROVED		7/8/57		PROD. INFO.		1-1999		15 5-86386 SA		SA	
APPROVED		Parrinello				CHG. EFF.					
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P	

* SHT 5A, ZN C2, VIEW 2A2 CHANGE CALLOUT
 OF .250²⁵⁴ DIA HOLE TO READ:
 NAJ-5-045
 NAS-517-4-5
 (2 PLACES)
 SPOTFACE 5/8 DIA X .06 R
 MIN. DEPTH TO SEAT-IF REQ.

ZN A8 SHT 10A *
 ZN A7 SHT 10A *
 DELETE
 (1 PL. AS SHOWN)
 (IN EACH VIEW)



* SHT 4A *
 IN ZN. B4 & B7, VIEWS C9-3A & C11-3A
 ADD SECTION INDICATION & CALLOUT AS
 SHOWN. (1 PLACE EACH VIEW)

C2-3A *
 STA 810

C3-3A *
 STA. 800

APL #1 COMPLETED SATISFACTORY PER R/T # 110902, ITEM'S 2, 3, & 4.
 PLNG & TOOLS IN ACCORD


(*ADCH REF)
 ONLY

AIRP. REC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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Body

3-89

ELR NO. 795	MODEL No. 767	6-24-57 DWG REC CLK 6-24-57 RELEASE 6-24-57 B/P GROUP NO CHANGE SEE BELOW	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DRAWING WILL BE CHANGED TO INCLUDE THIS ADD AS A VARIATION		E ISSUE NO. 43000 CHG. NO. SEC. NO. 43 1-1999 CHG. EFF.	TIFRANK ANGLE REL BEAM WTS DWG. TITLE 571 6402 753		ADCN 4	DRAWING NO. 6-74884	SHT. -	
DRAFTED <i>G. Bann</i> 6/14/57	CHECKED <i>R. Bann</i> 6/19/57	APPROVED <i>R. Bann</i> 6-20-57	REASON: TO PROVIDE PROPER FINISH		PLANNING DEKASKY		PHONE 3467				
ORIGINATOR		PHONE	ENGINEERING LIAISON REQUEST		BOX NO. 91-90						
REQ. <i>William Schwen</i> 4193	APP. <i>William Schwen</i>	DEPT. 6-4800	BOX NO. 90-19								
PARTS LIST ZONE	REPLACES	REQD.	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P	
			-5						2.115		

CHANGE P/L AS SHOWN ABOVE
IN GENERAL NOTES REMOVE 

PROD. INFO. REWORK AIRPS #1&2 BY BRUSH COATING RAYING SURFACE
STATUS OF TOOLS &/OR PLANNING DETAIL PLANNING AFFECTED - REWORK PARTS INSTALLED
STATUS OF COMPLETED AIRP. &/OR PARTS

BODY

3-69

R/T 249589

A
D
C
N

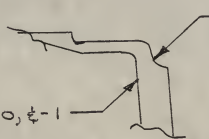
MODEL 707	6-24-57 DWG. REC. CLK	BOEING AIRPLANE COMPANY		E	SUPPORT FORGING KEEL BEAM STA 830-910		
DRAFTED R ARCHIBALD	6/15/57	ADVANCE DRAWING CHANGE NOTICE		ISSUE NO. 95000	ADCN	DRAWING NO.	SHT
CHECKED A.L. Patchen	6/15/57	THE DWG WILL BE CHANGED TO INCLUDE THIS AD CN		CHG. NO.	4	50-5500	1
STRESS		<input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION		SEC. NO. 43			
APPROVED	6-15	REASON: FLASH CAUSES INTERFERENCE		1-199 301-1999			
APPROVED		PROD. INFO.		CHG. EFF.			

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
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IN ZN A4 ADD NOTE AS SHOWN

ADCN REF ONLY

50-5500, 4-1

NO FLASH EXTENSION THIS
CORNER 250 VISUAL (TYP BOTH ENDS)

REWORK EXISTING PARTS NOT INSTALLED (AIRPLANE #2 SATISFACTORY
APPLY F. 2.30 FINISH TO REWORKED SURFACE PER R/T 249589)

R JOHNSON 6-3380

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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8P 6-4510

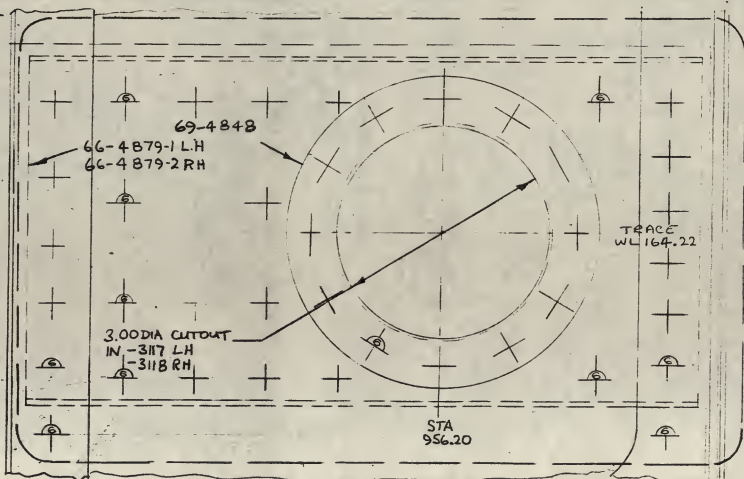
act 6-21-7

2-7000

MODEL 707	7-10-57 DWG REC. CLK	BOEING AIRPLANE COMPANY		6-95 17		BEAM INSTALLATION KEEL	
DRAFTED A B BARNES	7-10-57 RELEASE	ADVANCE DRAWING CHANGE NOTICE		B		DWG. TITLE STATION 820-960	
CHECKED	7-10-57/16 S/P GROUP	THE DWG WILL BE CHANGED TO INCLUDE THIS ACTION <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION		ISSUE NO. PRR10003-4		ADCN 21	DRAWING NO. 5-86387
STRESS	6-7000 REQUESTED	REASON: LARGER INTERCONNECT REQUIRED -		CHG. NO. 43			SHT. 8A
APPROVED				SEC. NO. 4-199			
				301-1999			
				CHG. EFF.			
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL
							HEAT TREAT
							FINISH
							P

IN ZONE C2
ADD STICKER
VIEW (3)

SEE ADCN 21
ON SH 1A
FOR COMPLETE
CHANGE



AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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9-20 67

MODEL 707	57-7-3-5 DWG. REC. CLK. 207-531	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG. WILL BE CHANGED TO INCLUDE THIS ADDN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION		PANEL INSTALLATION BOTTOM BODY DWG. TITLE STA 260-1265-20	
DRAFTED R. PARKINS 4-10-57	RELEASE 7-2-71 B B/P GROUP RYAN			ISSUE NO. FRR 95000	ADCN RY-8 50-7933 1
CHECKED W. J. [unclear] 4/26/57	REQUESTED RYAN	REASON: E.D. NEEDED ON KEEL BEAM-R.H. AT STA 1091.50 & AFT END OF 50-5331 DOES NOT AGREE WITH 50-8272. FRAME INSTL STA 1140 (ENGL. ERROR)		CHG. NO. 46	DRAWING NO. RY-12 50-7933 2
STRESS W. J. [unclear] 4/27	APPROVED [Signature]			SEC. NO. 1-89 & 201-499	RY-5 50-7933 3
APPROVED [Signature]	PROD. INFO.			CHG. EFF.	

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
1-66	50-7933	V	1	50-5331-1						
1-67		V	1	50-5331-2						
		V	1	50-5331-1103	CHORD-KEEL BEAM	C102				
		V	1	50-5331-1106	OPP. 50-5331-1103	B102				

ON S/I CHANGE P/L AS SHOWN ABOVE

ON S/2 BOTTOM VIEW

CHANGE: AT ZONE B10

50-5331-2 50-5331-1106

AT ZONE C10

50-5331-1 50-5331-1103

ON S/3 VIEW C11-2

CHANGE: AT ZONE B10

END OF

50-5331-1 50-5331-1103

50-5331-2 OPP. 50-5331-1106

OPP.

CHANGE CALLOUT: 50-5331-1103

50-5331-2 OPP. 50-5331-1106

OPP.

AT ZONE B4 VIEW A4

CHANGE CALLOUT:

50-5331-1

50-5331-2 OPP.

50-5331-1103

50-5331-1106 OPP.

AT ZONE A4 VIEW

286-2

CHANGE CALLOUT:

50-5331-1

50-5331-2 OPP.

50-5331-1103

50-5331-1106

OPP.

ON S/2 ZONE B7

ADD TAB TO KEEL BEAM RH.

ON D/D AS SHOWN.

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS			PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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BAC 829 C 95

27000

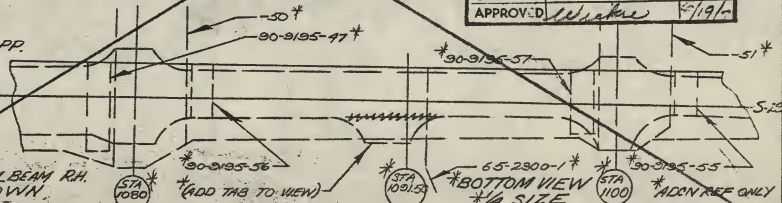
**CANCELS ADCN RY-5
S/I, RY-8 S/2 & RY-3 S/3**

REASON: PART NOS. CHANGE PER ADCN RY-4
AGAINST 50-5331 & RY-6

MIR # 38584
DTD 4-17-57

DWG CLARIFICATION ONLY
SEE ADCN RY-4
RY-5 AGAINST
DWG 50-5331
AFL THRU A COVERED
BY MIRA # 38335

<input type="checkbox"/> BAC RELEASED	<input type="checkbox"/> KC-135
<input checked="" type="checkbox"/> CANCEL BY BAC ADCN	<input checked="" type="checkbox"/> 707
#13, #11, #9	
CHECKED	[Signature] 6/1/57
CHECKED	
APPROVED	[Signature] 5/19/57

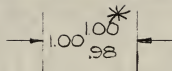


CIT-2955 ENG. (H.C.) ONLY

NO/92

11-80

MODEL 707		017-2-57 DWG REC. CLK		BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DTC WILL BE CHANGED TO INCLUDE THIS ADN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: TO ELIMINATE EXCESSIVE HANDWORK.		CHORD-KEEL BEAM STA. 600E-600K-5-29				
RATKINSON, 6-27-57		96 7-1-57				DWG TITLE				
DRAFTED		RELEASE		ISSUE NO.		ADCN				
CHECKED Schnelle		7-5-57		PAR 95000		DRAWING NO.				
2/27		S/P GROUP		CHG. NO.		BHT				
STRESS		REQUESTED		SEC NO. 43		1 65-43+3				
APPROVED Miller		7/17		SAME AS DRAW- CHG EFF. ING						
APPROVED Barkley		7-2-57		PROD. INFO.						
PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P

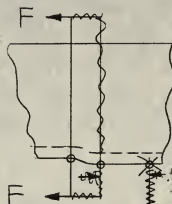


CHANGE AND ADD TO DRAWING
AS SHOWN:

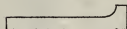
ULERY, 6-4510; ELR 153679, 6-22-57

NO PARTS MADE
PLANNING AFFECTED

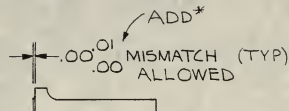
SECTION F-F B3



50 BLEND 19 RAD
INTO 90° EDGE
OVER THIS DIS-
TANCE.



SECTION A-A B4



*ADCN REF ONLY

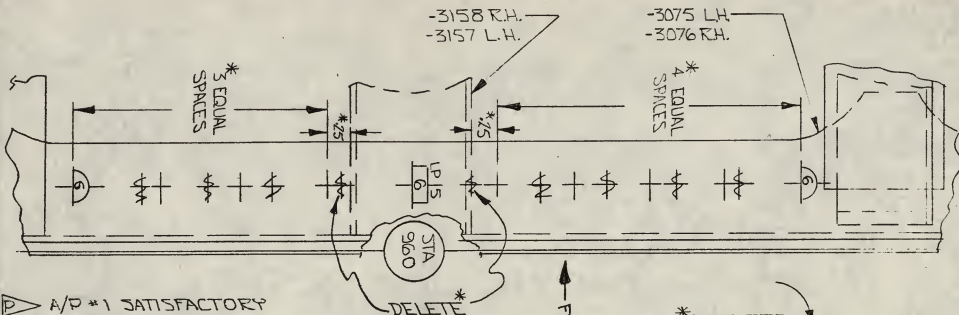
AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
				R 6-4510 7-1-7				

BODY

ELR# 156408 1-89 17

MODEL 707		577-17-52 DWG REC. CLK		BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ADON <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: TO ELIMINATE INTERFERENCE BETWEEN RIVETS & -3158 RH, -3157 L.H.		B		BEAM INSTALLATION KEEL			
C.F. ANSON		7-9-7				ISSUE NO.		DWG. TITLE STA 820-960			
DRAFTED		7/9/7		RELEASE 7-17-52		95000		ADCN		DRAWING NO.	
CHECKED J. R. GIPSON		7/9/7		S/P GROUP		CHG. NO.		25		5-86387	
STRESS H.E. Bryant		7/9/7		REQUESTED		SEC. NO. 43					
APPROVED				PROD. INFO.		AS TABULATED CHG. EFF.					
APPROVED Carter		7/11/57									
PARTS LIST ZONE		REPLACES		REQD		PART NUMBER		NOMENCLATURE		ZONE CODE	
										STOCK SIZE (APPROX. NET)	
										MATERIAL	
										HEAT TREAT	
										FINISH	
										P	

IN ZN BZ DELETE (2) RIVET LOCATIONS
& RE-SPACE RIVETS AS SHOWN



▷ A/P #1 SATISFACTORY
PER REJ TAG
A/P #2 IN ACCORD. TDR REQUIRED
A/P #3 IN ACCORD. FOR PAPER CHANGE
A/P #4 & ON MUST COMPLY
5-86387-951 & 952 ALREADY REWORKED BY 6-3760

*ADCN REF ONLY

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS				PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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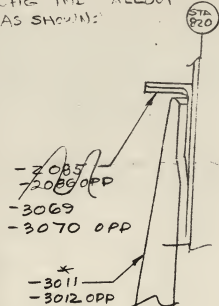
MODEL 707	7/9-10-57	BOEING AIRPLANE COMPANY SEATTLE 14, WASH. 19107-10	10-76 BULKHEAD INSTL. KEEL BEAM STA 840	
DRAFTED H. MITCHELL	7/3/7	ADVANCE DRAWING CHANGE NOTICE	ISSUE NO.	ADCN
CHECKED R. Kellid	7/3/7	THE CHG. WILL BE CHANGED TO INCLUDE THIS REASON <input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION	ITEM NO. 4381	DRAWING NO. 65-5626
STRESS		REASON: TO CORRECT	SEC. NO. 43	SHT. 1
APPROVED P. M. Moore	7-3-7	P/L	2001 FON	
APPROVED R. Kellid	7-5	PROD. INFO.	CHG. EFF.	

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
3-55		✓	6-83517-3002	ANGLE STIFF	C82					
3-54		✓	6-83517-3001	ANGLE STIFF	882					
	6-83517-3002	✓	6-83517-3005	ANGLE STIFF	C82					
	6-83517-3001	✓	6-83517-3004	ANGLE STIFF	882					

CHANGE P/L AS SHOWN:

MODEL 707		276-18-57 DWG. REC. CLK. 276-18-57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DRAWING WILL BE CHANGED TO INCLUDE THIS ACTION <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: JOG NOT READ OVER EXTENDED REF. DOUBLER \$ RIVET CANNOT BE INSTALLED		H	BEAM INSTALLATION BODY STA KEEL DWG. TITLE 620-820				
DRAFTED R. HOLLENBECK	5-27 57	RELEASE 6-19-57			ISSUE NO. 95,000	ADCN 3	DRAWING NO. 5-86386	SHT. 4A		
CHECKED VONK	6-8	B/P GROUP REJ. TAG 13757 & 305295 REQUESTED			CHG. NO.	7	5-86386	10A		
STRESS —					SEC. NO. 43					
APPROVED <i>[Signature]</i>	6-10	PROD. INFO. ▶			1 THRU 1999 CHG. EFF.					
APPROVED										
PARTS LIST ZONE	REPLACES	READ	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P

ON SH 4A:
CHG. AND FALLOUT
AS SHOWN:



A10-5A

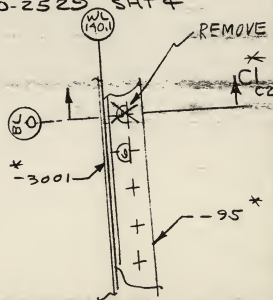
(REF. ADCN #23 ON SH 1A & ADCN #14 ON SH 5A)

*ADCN REF



*P 001: REWORKED PER
REJ TAG 305295

ON SH 10A
IN ZU C1 SECN VIEW 2A2
REMOVE ONE (1) RIVET LOCATION
AS SHOWN, ADD REF STRUCTURE
AT BLO PER 50-2529 SHT 4



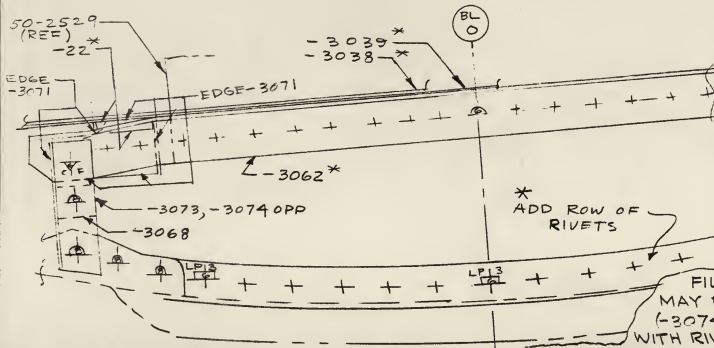
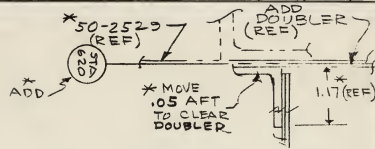
AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS			PART NUMBER	RELEASE COLUMN IND	DWG. SHEET NO.
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1-78

MODEL 707		576-18-57 DWG. REC. CLK	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG. WILL BE CHANGED TO INCLUDE THIS ACTION <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: FILLER REQD BETWEEN KEEL BEAM STIF & BHD WEB. LOCKBOLTS ADDED.		A	BEAM INSTALLATION		
R. HOLLENBECK	6-6	576-18-57 RELEASE				KEEL BODY STA 620-820		
DRAFTED	57	6-10-78 E/P GROUP	REJ TAG 137 072 REQUESTED		ISSUE NO. 95,000	ADCN 8	DRAWING NO. 5-86386	BHT. 10A
CHECKED <i>VONE</i>	6-8				CHG. NO.			
STRESS <i>Blair 10/1/78</i>					SEC. NO. 43			
APPROVED <i>Blair</i>	6-10-78				1 THRU 1999			
APPROVED					CHG. EFF.			

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
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IN SECN VIEW ZAZ ZONE 1 (STICKER VIEW ①)
 ADD 50-2529 REF STRUCT., ADD -3071, REPLACE -3028
 FILLER WITH -3068; REPLACE -3025 (-3026 OPP) ANGLE
 WITH -3073 (-3074 OPP) & ADD LOCKBOLTS AS SHOWN.



IN SECN VIEW C1 ZNC2
 ADD DOUBLER TO 50-2529
 (REF), RELOCATE CHG
 LENGTH OF -95 (-3062
 REF ADCN 3 SH 10A) LEG TO
 AGREE WITH VIEW IN
 ZN 12 SH 3A & ADD STA
 CALLOUT AS SHOWN.

APL 001 REWORKED
 PER REJ TAG 137 072
 FOR FILLERS ONLY.
 SCRAP EXISTING -3028
 FILLERS, -3025 (-3026 OPP)
 MAY BE REWORKED INTO -3073
 (-3074 OPP). PLANNING NOT IN ACCORD
 WITH RIVET ADDITION. AIRP 001 IS

PER ADCN 24 ON SH 1A
 & ADCN 11 ON SH 3A

* ADCN REF ONLY.

SATISFACTORY WITH REGARD TO RIVETS
 ADDED PER REJ. TAG # 244988

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		RELEASE	PART NUMBER	COLUMN IND	DWG. SHEET NO.
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1-84

MODEL 707		576-15-57
R. HOLLENBECK	6-6	DWG REC CLK
DRAFTED	57	726-19-57
		RELEASE
CHECKED <i>Vold</i>	6-8	6-17-57
		B/P GROUP
STRESS		REF TAG
		137 072
APPROVED <i>J. Brown</i>	6-10-7	REQUESTED
		PROD. INFO.

BOEING AIRPLANE COMPANY

ADVANCE DRAWING CHANGE NOTICE

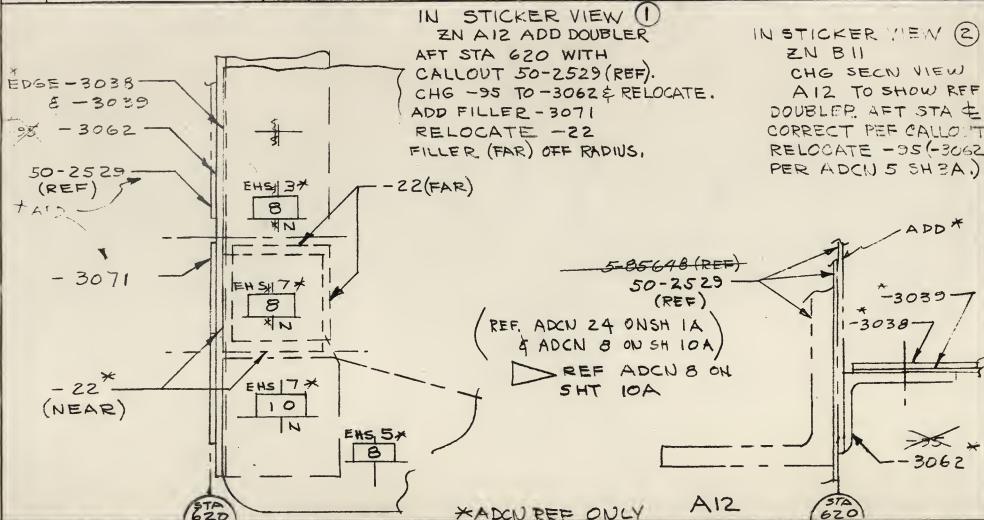
THE DRAWING WILL BE CHANGED TO INCLUDE THIS ADEN

☐ DEVIATION ☒ VARIATION

REASON: FILLER REQD BETWEEN KEEL BEAM STIF & BHD WEB

BEAM INSTALLATION		
BODY KEEL		
DWG. TITLE		
ADCN	DRAWING NO.	SHT.
	11-5-86386	3A
ISSUE NO.		
35.000		
CHG. NO.		
43		
SEC. NO.		
1-1999		
CHG. EFF.		


PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
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AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG NO.	MODEL	AIRPLANE SERIAL NUMBERS			PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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BODY

ELR 160688 2.85

MODEL 707		DWG. REC. CLK 2247112/57		BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ADDN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: WRONG FINISH FOR SKYDROL AREA		A		BEAM INST REFL BODY STAG 20-820 DWG. TITLE		BHT.			
DRAFTED RUTH WEAVER 6-10-7		RELEASE 6-15-57				ISSUE NO. PRR 95000		ADCN 25		DRAWING NO. 5-86386		IA	
CHECKED <i>[Signature]</i> 6-15-57		B/P GROUP				CHG. NO.							
STRESS		REQUESTED 				SEC. NO. 43							
APPROVED		PROD. INFO.		1-1999									
APPROVED <i>Bairly</i> 6-15-57				CHG. EFF.									
PARTS LIST ZONE	REPLACES	3000	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P		
				-3011									

CHG P/L AS SHOWN ABOVE

APL 001 & ON MUST COMPLY
DETAIL PLNG. AFF.

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS				PART NUMBER	RELEASE COLUMN IND	DWG. SHEET NO.
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1-75-17

MODEL	707	57-16-57 DWG. REC. CLK 2/21/11/157	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG. WILL BE CHANGED TO INCLUDE THIS ADDN <input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION REASON: TO PROVIDE CLEARANCE FOR THE THRUST REVERSER ACTUATOR CYLINDERS		new ISSUE NO. 10749 CHG. NO. PRR 71 SEC. NO. 1-199 & 301-1999 CHG. EFF.	COWL PANEL ASSY		
DRAFTED	B. HANSON	4/2/57				L.H. SIDE, ENG NAC		
CHECKED	Brylan	7/11	B/P GROUP			DWG. TITLE		
STRESS	Donaldson	7/11/57	G-1000 DONALDSON REQUESTED			ADCN	DRAWING NO.	SHT.
APPROVED	VA		PROD. INFO.			6	5-85637	1A
APPROVED	7/11							

PARTS LIST ZONE	REPLACES	-3000	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
	-3035	-3070	1	-3086	FRAME STA 205.00	B3 ₁₀₀	.045×6.0 ×60.0	503	-	F-10.10	R
	-3075	-3072	1	-3087	CHANNEL	F4 ₁₀₀	.045×3.0 ×4.0	503	-	F-10.10	R
	-3074	✓	1	-3088	TIE PLATE	D5 ₁₀₀	.045×2.20 ×10.50	503	-	F-10.10	R
2-24		✓	1	-3074	TIE PLATE						
	-3040	✓	1	-3089	FRAME STA 125.04	D11 ₁₀₀	.050×4.00 ×45.0	501	T4	SRF-12.207	R

1-24 ~~-3070~~ + ~~-3035~~ FRAME - STA 205

2-15 ~~-3072~~ + ~~-3075~~ CHANNEL

1-15 X + ~~-3040~~ FRAME - STA 125.04

CHANGE P/L AS ABOVE



REWORK EXISTING PARTS

HP 7/13/7

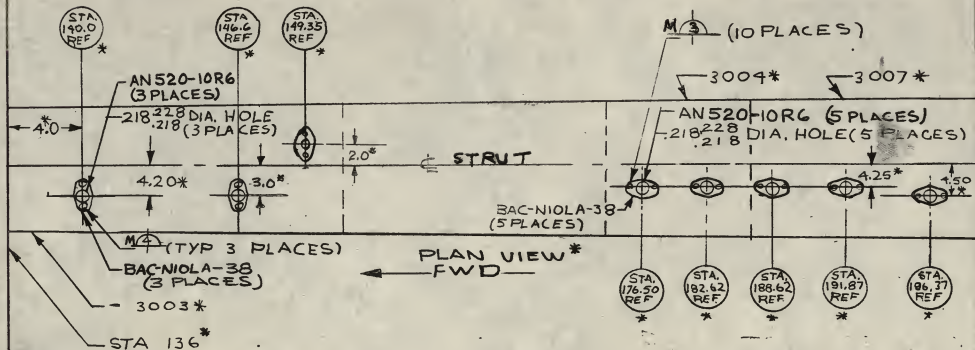
AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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2-20 4T

MODEL 707	27-16-57 DWG. REC. CLK	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE		LOWER SPAR INSTALLATION-	
DRAFTED G. OSTERLOH	7/9/7	RELEASE 7-18-57	ISSUE NO. PRR. 10453		DWG. TITLE OUTBD STRUT
CHECKED T. BURDO	7/9/7	R/P GROUP DONALDSON 6-7000	CHG. NO.	ADCN	DRAWING NO.
APPROVED <i>Donaldson</i>	7/11/7	REQUESTED	SEC. NO. 74	26	8-8122
APPROVED <i>W. H. 7/11</i>	7/11/7	PROD. INFO.	1-199 F 301	16	8-8122
			THRU 1959		
			CHG. EFF.		

PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
		✓	8	BAC-NIOLA-A38			ELASTIC STOPNUT CORR			
		✓	8	AN520-10R6			SCREW, MACH			

CHANGE P/L IN SHT 1A AS SHOWN ABOVE
CHANGE PICTURE IN SHT 2A AS SHOWN BELOW



ADCN REF. *

AIP 7/15

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND.	DWG. SHEET NO.
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WING

7-17-52
29-12-52

R/T*299701 & E/R*1754-1 2-94 4T

MODEL 707	510-7	DWG. REC. CLK. R/R 5-11-57 REL. 5-11-57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE		C- ISSUE NO. 95000 CHG. NO.	FRONT SPAR INSTALLATION DWG. TITLING IN BOARD	
CHECKED JRG:BBB:23	5/10/7	B/P GROUP 7-1-57	THE DWG. WILL BE CHANGED TO INCLUDE THE ADDN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION		18	5-84012	1A
STRESS J. McJinnis	5.10.7	REQUESTED	REASON: INTERFERENCE		23	5-84012	1A
APPROVED Wickre	5/11/7	PROD. INFO.	BETWEEN JOGGLE IN 9-61760-5 ANGLE & F.S. CHORD @ F.S.S. 509.599		27	5-84012	1A
APPROVED					1-99 & 201-1999		

PARTS LIST ZONE	REPLACES	REGD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
G-19	3042-3041-3002-3001	2-1	9-61760-5	ATTACH ANGLE						
G-20	3044-3043-3004-3003	2-1	9-61760-6	OPP 9-61760-5						
NEW	3043	1	3159	ATTACH ANGLE	B6-6A	BAC 1490-2555 x 4.60	CLAD 7075-0 SHT GG-A-287 0 TEMP	T6	F2115	R
NEW	3044	1	3150	OPP-3159						
NEW	3044-3043-3004-3003	2	3151	FILLER-TAPERED		BAC 1513-140 x 0.75	7075-T6 32-A-277 T6 TEMP		F230	T
			-29						F230	
NEW	3044	1	9-61760-3000	ATTACH ANGLE	B6-6A				F222	
NEW	3044	1	9-61760-3001	OPP 9-61760-3000						

CHANGE ~~F~~ AS SHOWN:

REPLACE ADXN23
TO LIMIT USE OF PARTS
& PROVIDE EDGE MARGIN
ON 1-99 & 201-1999

DEWU 5-11-57
CHK 5-11-57
APP 5-11-57
002 SATISFACTORY PER
R/T # 114858
ASSY PLNG AFFECTED
REQ RES TAG 114858
AIRP #1 SATIS

STEEL G-3580
R/T*299701

A/P*1 SATISFACTORY PER
RES TAG — A/P*2 RENWORKED
PER TAG 325732, 325733 & 325721

-29 CHANGED TO AGREE W/KC-135 DWG SHT 1

REF ADXN*8 SHT 6A

ASSY PLANNING AFFECTED A/P#3 & ON MULT COMPLY

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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BAC 924 C-95

R.W. 6-4510 5-11-7

TRG 4710 6/17/53 (27)

2-7000

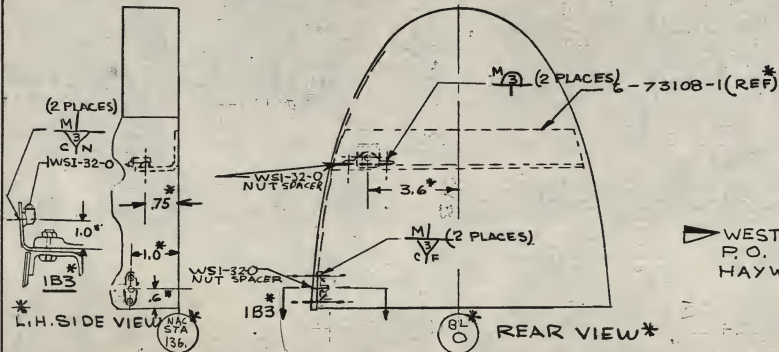
ADCN

6-17-52
2-94 4T

2-20 4T

MODEL 707	277-16-5) DWS REC. CLK 7/11/57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWS WILL BE CHANGED TO INCLUDE THE REASON <input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION REASON: TO PROVIDE CLAMPING FOR FIRE DETECTION ELEMENT		BULKHEAD INST. FORWARD ENGINE MOD. IT. IN60. NAC STA 136 DWS. TITLE		ISSUE NO. PRR. 10453 CHG. NO.	ADCN 7	DRAWING NO. 4-5177	SHT. 2A	
DRAFTED G. OSTERLOH 6/21/7	RELEASE 7/11/57					SEC. NO. 72	11	4-5177	1A	
CHECKED T. BURDO 7/8/7	S/P GROUP DONALDSON 6-7000 REQUESTED					1 THRU 199 301 THRU 1999 CHG. EFF.				
STRESS APPROVED <i>W. J. Donaldson</i> 7/11/57	PROD. INFO.									
APPROVED <i>W. J. Donaldson</i> 7/11/57										
PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
	NEW	✓	2	WSI-32-0	NUT SPACER BAC-NIODZ-3-0					

CHANGE P/L IN SHT 1A AS SHOWN ABOVE.



WESTERN SKY INC.
P.O. 300
HAYWARD CALIF.

CHANGE PICTURE IN SHT 2A AS SHOWN ABOVE

* ADCN REF ONLY

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWS. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWS SHEET NO.
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1-77 IT

MODEL 707	517-16-57 DWG. REC. CLK	BOEING AIRPLANE COMPANY <div style="border: 1px solid black; padding: 5px; display: inline-block;"> ADVANCE DRAWING CHANGE NOTICE <small>THE DWG. WILL BE CHANGED TO INCLUDE THIS ACTION</small> <input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION </div>		<i>New</i> ISSUE NO. 10749 CHG. NO. PRR	COWL PANEL ASSY R.H. SIDE, ENG NAC DWG. TITLE
DRAFTED B. HANSON	6/25/57 RELEASE 7-18-57	REASON: TO PROVIDE CLEARANCE FOR THE THRUST REVERSER ACTUATOR CYLINDERS		ADCN	DRAWING NO.
CHECKED <i>[Signature]</i>	7/11 S/P GROUP 6-7000 DONALDSON REQUESTED			6	5-8563B
STRESS Donaldson	7/11/57			SEC. NO. 71	
APPROVED <i>[Signature]</i>				1-199 &	
APPROVED <i>[Signature]</i>				301-1999	
				CHG. EFF.	

PARTS LIST ZONE	REPLACES	5-8563B -3000	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
	-3023	-3040	1	-3083	FRAME - STA 205.00	C10 _{2A}	.045 x 4.00 x 57.00	503	-	F-10.10	R
	-3070	-3050	1	-3084	LATCH CHANNEL	E9 ₁₀₀	.045 x 3.00 x 15.00	503	-	F-10.10	R
	-3056	✓	1	-3085	TIE PLATE	D8 ₁₀₀	.045 x 2.70 x 10.50	503	-	F-10.10	R
		X ✓	1	-3056	TIE PLATE	C9 ₁₀₀	.040 x 1.50 x 2.05	503	-	SRF-2.115	R
1-24	-3040	1	1	-3083							
1-71	-3050	1	1	-3070							
		X	X	-3014	FRAME - STA 124.90	C5 _{2A}	.050 x 4.00 x 70.00	501	T4	SRF-12.207	R
	-3014	✓	1	-3086	FRAME - STA 124.30	C5 _{2A}	.050 x 4.00 x 70.00	501	T4	SRF-12.207	R
		✓	1	-3015							
	-3015	✓	1	-3088	FRAME - STA 134.40	B6 _{2A}	.050 x 4.00 x 70.00	501	T4	SRF-12.207	R
		3037	1	-3016							
	-3016	-3037	1	-3087	FRAME - STA 142.80	B6 _{2A}	.050 x 4.00 x 71.00	501	T4	F-2.10	R



REWORK EXISTING PARTS

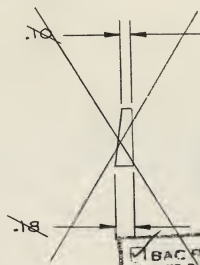
APP 7/13/77

AIRP. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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ADCN

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18



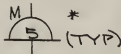
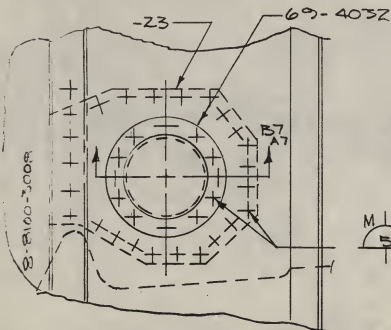
☒ BAC RELEASED ☐ KC-135
☐ CANCEL BY SAC/KC. ☒ 707
CHECKED *Stokuba* 4/13/79
CHECKED *RC Larson* 6/18/79

[illegible]

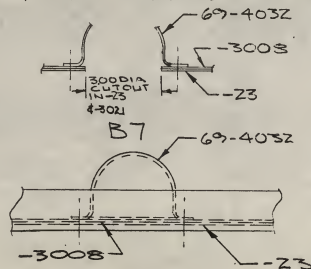
3-70 2T

MODEL 707	6-24-57 DWG. REC. CLK 227142457	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG. WILL BE CHANGED TO INCLUDE THIS ADDN <input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION REASON: TO ALLOW REMOVAL OF THE TOP ENG TEMP PROBE WITHOUT REMOVAL OF ENGINE.		A ISSUE NO. 10764 CHG. NO.		LOWER SPAR INSTALLATION DWG. TITLE INBD STRUT ADCN DRAWING NO. BHT.				
DRAFTED G. WOODS	6-11-57	RELEASE 6-24-57				5	8-8100	3A		
CHECKED <i>[Signature]</i>	6/8	B/P GROUP P. Donaldson 6-7000			SEC. NO. 72					
STRESS <i>[Signature]</i>	6-18-57	REQUESTED			1-199					
APPROVED <i>[Signature]</i>	6/8				301-1999					
APPROVED <i>[Signature]</i>	6/19	PROD. INFO.			CHG. EFF.					
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX NET)	MATERIAL	HEAT TREAT	FINISH	P

IN STICKER VIEW ② ADDED TO
PLAN VIEW -Z3 REINFORCEMENT
PLATE & 69-4032 IN BN CT



IN STICKER VIEW ① ADDED
TO L.H. SIDE VIEW -Z3
REINFORCEMENT PLATE,
69-4032, & -3021 IN Z11 A7
ALSO ADDED SEC VIEW B7




▷ REWORK ALL ASSY'S

* ADCN REF

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS			PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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NOT PROCESS

MODEL		707		227-10-57 DWG. REC. CLK.		BOEING AIRPLANE COMPANY		A		FORWARD FAIRING NACELLE ASSY. OF.	
DRAFTED		CWHULL 6/28/57		7-10-57		ADVANCE DRAWING CHANGE NOTICE		ISSUE NO.		DWG. TITLE	
CHECKED		TARTON 4/15/57		RELEASE 7-10-57 MB		THE DWG WILL BE CHANGED TO INCLUDE THIS ADDN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: ① TO ALIGN PARTS PRIOR TO SPOT WELD. (MFG- FACILITY). ② DRAWINGS REFERENCED WERE NEVER RELEASED. (ENGR ERROR)		ITEM 7142		DRAWING NO.	
STRESS		W. Erickson 4/15/57		B/P GROUP ROHR 4-1380 REQUESTED				CHG. NO.		R ₁ -4 50-8281	
APPROVED		E. B. Bunker 4/16/57		 PROD. INFO.				SEC. NO.		R ₁ -3 50-8281	
APPROVED		J. H. G. 4/16/57						1 THRU 199 301 THRU 1999 CHG. EFF.			
PARTS LIST ZONE		REPLACES		RECD		PART NUMBER		NOMENCLATURE		ZONE CODE	
								STOCK SIZE (APPROX. NET)		MATERIAL	
										HEAT TREAT	
										FINISH	
										P	

①. REVISE FACE OF DWG AS SHOWN BELOW ON SHT 2.

② ON SHEET 3, IN ZONES
A12, A10, A5, & A3. CHANGE
REF DWG. AS SHOWN.

~~50-8279 (REF)~~
5-85637 (REF)-

ON SHT 3 IN ZONE
A7 CHANGE REF
DWG. AS SHOWN.

~~30-8280 (REF)~~
5-85638 (REF)

NOTE: DWG'S 50-8280 & 50-8279 WERE NEVER RELEASED.

* ADCN REF ONLY.

P REWORK EXISTING PARTS AND ASSYS NOT INSTALLED.

KC 135 NOT AFFECTED.

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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A
D
C
N

BOEING AIRPLANE COMPANY
SEATTLE 14, WASHINGTON
ADVANCE DRAWING CHANGE NOTICE

FORE & AFT SKINS SPLIT TO
REASON: MAINTAIN MANUFACTURING
TOLERANCES.
(MFG. FACILITY)

410 7/3/7

AIRPLANE SERIAL NUMBERS

EDCIN

581-560

Technical drawing of a bridge cross-section. The drawing shows a central pier with two spans. The left span is labeled "60-1515-2000" and the right span is labeled "NAC STA 17.50". The drawing includes various structural details and dimensions.

✓
RECEIVED
MAILED BY MAIL ROOM ✓
RECEIVED
CHECKED
APPROVED
Blakester 7/1/57
J. E. Larson 7/2/57

* ZONE C5.

KC 135 NOT AFFECTED.

71317

12
15

2-9-57

6-85 17

MODEL 707		DWG. REC. CLK. 6-11-57 RELEASE 1-18-57 7-6-57 P. DONALDSON P.P. 6-7-60 REQUESTED	<h1 style="margin: 0;">A</h1> <h1 style="margin: 0;">D</h1> <h1 style="margin: 0;">C</h1> <h1 style="margin: 0;">N</h1>	STRUT ASSY INBD NAC EQUIPMENT DWG. TITLE AD CN DRAWING NO. SHT.		
DRAFTED TONY BURDO 1-11-57			ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS AD CN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION	ISSUE NO. 95000 CHG. NO. PRR 10455	5 510-8227	- -
CHECKED				SEC. NO. 72. 1-198	6 50-8227	- -
STRESS				301-1888 CHG. EFF.		
APPROVED <i>P. Donaldson</i> 1/13/57						
APPROVED <i>R. E. Hage</i> 1-16-57						
PROD. INFO.						

REASON: TO AGREE WITH PLUMBING INSTALLATION

PARTS LIST ZONE	REPLACES	10	9	8	7	6	5	4	3	2	1	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
													50-5547-1	PLUMBING INSTL. STRUT NO. 3	5					
													50-5547-2	PLUMBING INSTL. STRUT NO. 2	5					
													50-5547-1	PLUMBING INSTL. STRUT NO. 2	5					
													50-5547-3	PLUMBING INSTL. STRUT NO. 2	5					
													50-5547-4	PLUMBING INSTL. STRUT NO. 3	5					

CHANGE P/L AS SHOWN ABOVE

" CANCELS ADCN NO. 3 "

DRAFTED OSTERLOH 6/24/57
 CHECKED T. BURDO 6/26/57
 APP. *P. Donaldson* 6/28/57
 APP. *R. E. Hage* 6-28-57
 TO BRING UP TO DATE

REASON: TO EXTEND USE FROM
 1-99 TO COVER AIRPLANE
 SERIAL NOS 1-199, 301-1899.

ADCN 6 REPLACES ADCN 5

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS				PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.

7-8-7
 AP 7/57
 JUN 11/57

ADCN

BOEING AIRPLANE COMPANY
SEATTLE 11, WASHINGTON

ADVANCE DRAWING CHANGE NOTICE

THE DOWEL WILL BE CHANGED TO INCLUDE THIS ADDN

☐ DEVIATION ☒ VARIATION

REASON TO BRING TAB BLOCK
UP TO DATE

1877

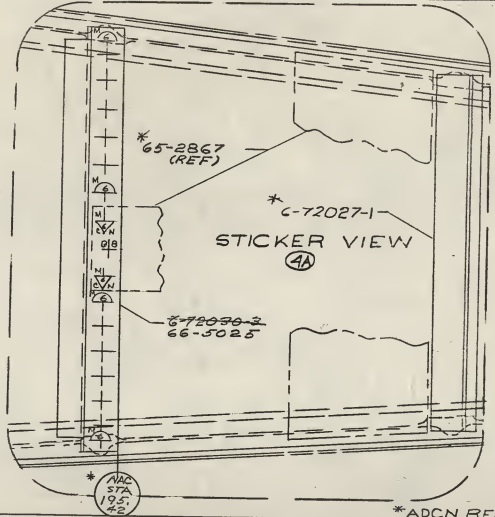
BAL 4 11-1946

3-60-27

MODEL 707	577-11-57 DWG. REC. CLK. 907-11-57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE <small>THE DWG WILL BE CHANGED TO INCLUDE THIS ADCN</small> <input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION		ISSUE NO. 10826 CHG. NO. PRR 74 SEC. NO. 1-199 & 301-1999 CHG. EFF.	LOWER SPAR INSTL OUTBD NAC STRUT DWG. TITLE		
DRAFTED B. HANSON	7/8/62	RELEASE 7-11-57/58	R/P GROUP	ADCN	DRAWING NO.	SHT.	
CHECKED <i>[Signature]</i>	7/9	E. KEEFER	6-7000	25	8-8122	2A	
STRESS <i>[Signature]</i>	7-9-7	REQUESTED	PROD. INFO.				
APPROVED <i>[Signature]</i>	7/9/57						
APPROVED <i>[Signature]</i>							

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
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IN ZN BG, C6
CHANGE STIFFENER
6-72030-3 TO 66-5025
PER STICKER VIEW (4A)



AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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707	27-11-57 DWG. REC. CLK. 96 7-11-57
WILLARD DALE 6-14-57	RELEASE 6-16-57
CHECKED <i>Rumrason</i> 7/9	B/P GROUP G. DREW
STRESS <i>E. R. R. R.</i> 7-9-7	REQUESTED E-7000
APPROVED <i>Rumrason</i> 7/157	PROD. INFO.
APPROVED <i>Rumrason</i>	

BOEING AIRPLANE COMPANY

ADVANCE DRAWING CHANGE NOTICE

THE DWG WILL BE CHANGED TO INCLUDE THIS ADON

☐ DEVIATION ☐ VARIATION

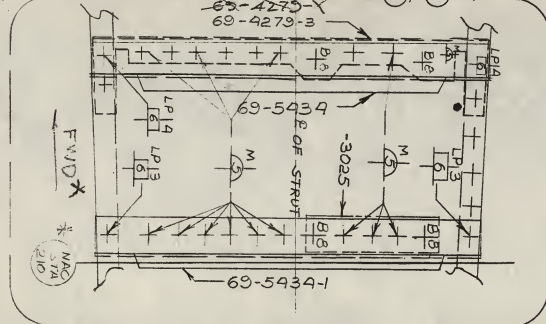
REASON: TO PROVIDE SUPPORT
FOR THRUST-REVERSER
CONTROL BRACKET

A	LOWER SPAR INSTL. INBD NAC STRUT		
	DWG. TITLE		
ISSUE NO. PRR-10826	ADCN 6	DRAWING NO. 8-8100	SHT. 3A
ENG. NO.			
SEC. NO. 72			
1-199 CHG. EFF. 301-1999			

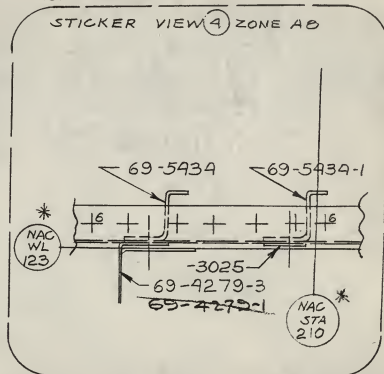
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
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ADDED STIFFENERS 69-4279-3, 69-5434 & 69-5434-1 PER STICKER VIEW (3) & (4)
ADDED DOUBLER-3025 TO STICKER VIEW (3), (4)

ON SHT 3A ZONE AB CHANGE 69-4279-1 CALLOUT TO 69-4279-3
CORRECT PICTURE TO SUIT NEW DETAIL
REVISED FID PER STICKER VIEWS (3) & (4) AS SHOWN BELOW



STICKER VIEW (3) ZONE BB, CB



STICKER VIEW (4) ZONE AB

*ADCN REF ONLY

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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MODEL 707		DWG. REC. CLK. 3-22-57		BOEING AIRPLANE COMPANY		ATTACH ANGLE INST. T.E. FAIRING IN BR	
DRAFTED D. MATTESON 11/57		RELEASE 10-57		ADVANCE DRAWING CHANGE NOTICE THE DWG. WILL BE CHANGED TO INCLUDE THIS ADCH <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION (MFG. FACILITY)		DWG. TITLE NAZELLE	
CHECKED H.D. DARTON 11/57		3-22-57 2-26				ADCN DRAWING NO. 21 65-2397	
STRESS E.O. Beckman 11/57		7-15-57 16 B/F GROUP		ITEM 7255		3 65-2397	
APPROVED [Signature]		20482 4-875 REQUESTED		SEC. NO. 12		3 65-2397	
APPROVED [Signature]		PROD. INFO.		1 THRU 199		301 THRU 1999	
				CHG. EFF.		[Signature]	


PARTS LIST ZONE	REPLACES	-2	-1	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	OF MATERIAL TREAT	FINISH
1-3			✓	1	-3	ATTACH ANGLE FWD B1	2	.063X10 X140.	▷	T4 F2.20 S
1-4		✓		1	-4	OPP-3				
1-5			✓	1	-5	ATTACH ANGLE-FWD B5	2	.063X10 X140.	▷	T4 F2.20 S
1-6		✓		1	-6	OPP-5				
NEW -3			✓	1	-801	ATTACH ANGLE FWD B2	2	.063X10 X70.	▷	T4 F2.20 S
NEW -4		✓		1	-802	OPP-801				
NEW -3			✓	1	-803	ATTACH ANGLE FWD B2	2	.063X10 X72.	▷	T4 F2.20 S
NEW -4		✓		1	-804	OPP-803				
NEW -5			✓	1	-805	ATTACH ANGLE FWD C2	2	.063X10 X72.	▷	T4 F2.20 S
NEW -6		✓		1	-806	OPP-805				
NEW -5			✓	1	-807	ATTACH ANGLE FWD C2	2	.063X10 X70.	▷	T4 F2.20 S
NEW -6		✓		1	-808	OPP-807				
38		XV	XV	X46	SAL100T6-4	BOLT, LOCK, SHEAR, 100° HD (BAC-B30P-6-4)			▷	

REVISE PARTS LIST AS SHOWN ABOVE.

REPLACES ADCN R-1) ③ → APL 001 & ON MUST COMPLY
 DRAWN: R. WEAVER (6-27-7)
 CHK'D: R. WEAVER (6-29-7)
 APP'D: [Signature] (6-30-7)
 REASON: PARTS REQUIRE ADDITIONAL FINISH ON EXPOSING SURFACES
 ▷ REMOVE EXISTING PARTS. ③ REF BAC LETTER 64475.3-5131 DATED 12-26-56

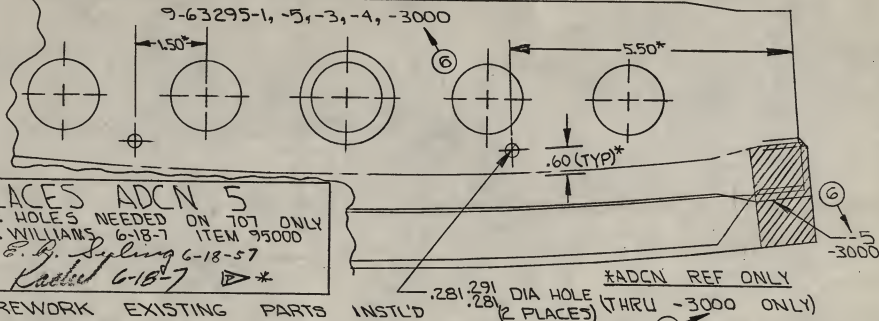
AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS				RELEASE COLUMN IND	DWG SHEET NO.
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[illegible]

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
	NEW		-3000	BLKHD-CHORD SUPT		.081 x 4.5 x19.9	7075-0 SH1 QQ-A-283 OTEMP	T6	F2.30	5

ADD -3000 TO PARTS LIST AS SHOWN ABOVE

ADD -3000 CALL-OUT TO DWG AS SHOWN BELOW
ADD TWO .281 DIA HOLES TO DWG AS SHOWN BELOW



REPLACES ADCN 5
REASON: HOLES NEEDED ON 707 ONLY
DRAWN: WILLIAMS 6-18-7 ITEM 95000
CHK'D: E. B. Syling 6-18-57
APPRD: Rader 6-18-7 

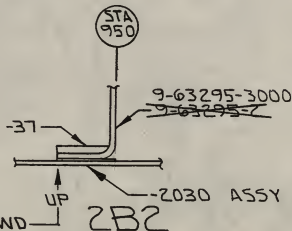
P * REWORK EXISTING PARTS INSTLD (2 PLACES) (THRU -3000 ONLY)
PLNG. AFFECTED
SEE ADIN 50 SHITIA ON 5-86387 CHG T/B AS SHOWN BELOW

43	1	5-86387	707	1 THRU 1999	9-63295-3000			
43	1	5-86387	707	1 THRU 1999	9-63295-5			
AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.

PARTS LIST ZONE	REPLACES		-3000	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX NET)	MATERIAL	HEAT TREAT	FINISH	P
72-4		—	✓	1	9-63295-5	BLKHD-CHORD SUPT	BZ 5A					
	9-632955		✓	1	9-63295-3000	BLKHD-CHORD SUPT	BZ 5A					

STA
950

PLAN VIEW
LOWER SKIN
← FWD →



AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
				AIRPLANE SERIAL NUMBERS			

8-20 4T

MODEL 707	276-21-52 DWG REC CLX 22A 4/27/57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE REASON: TO ADD SKYDROL RESISTANT FLANGE <input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION		ISSUE NO. PRR 95000 CHG. NO.	MID SPAR INSTL. INBD NACELLE DWG. TITLE STAVT	ADCN	DRAWING NO.	SHT.
DRAFTED G. OSTERLOH 6-6-57	RELEASE 6-24-57			SEC. NO. 72	15	4-5175	1A	
CHECKED F. Mc DONOUGH 6/7/57	B/T GROUP			1 THRU 199	17	4-5175	3A	36
STRESS	CDNALOSOV REQUESTED			301 THRU CHG. EFF. 1999				
APPROVED <i>Donaldson</i> 6/18	PROD. INFO.							

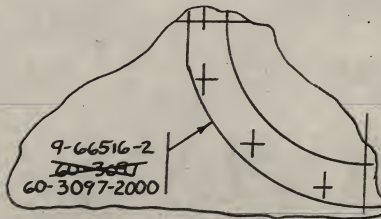
PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
	NEW	✓	1 60-3097	FLANGE						
	60-3097	✓	1 60-3097-2000	FLANGE						

ON SHT 1A:

REVISE P/L AS SHOWN ON ADCN R2, SHT 1A EXCEPT CHANGE
CALLOUT OF 60-3097 TO 60-3097-2000 AS SHOWN ABOVE.

ON SHT 3A:

REVISE DWG. AS SHOWN ON ADCN R1, SHT 3A EXCEPT CHANGE
CALLOUT OF 60-3097 TO 60-3097-2000 AS SHOWN BELOW.



6/20

AMP. SEC. NO.	QTY. PER AMP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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50-8738

Diagram - H. KATE Fr Ext 3y 707

65-1636 Tubing instal F. xtinguisher 1st wing
65-2111 Door F ext access
65-2981 Fr. Detect Main WW

4-5177-1A Fire detector inst.

50-10307 Detect, inst., Fwd cargo
50-8253 System Diagram, Eng F xting.
not released.

69-3161 clamp, detector inbd strut,

THRUST REVERSER

MODEL **707**

DRAFTED **R. HARDING**

CHECKED **67 Baker** *SW* **7/16/57**

STRESS

APPROVED **R. Pearson** **7/16/57**

APPROVED

877-17-57
DWG. REC. CLK
907-18-57
RELEASE
7-18-57
B/P GROUP
R. PEARSON
REQUESTED

BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE

REASON: TO CORRECT
P/L & CALL OUTS

REASON: ☐ DEVIATION ☒ VARIATION

1-53 27

CLAMSHELL
INSTALLATION
DWG. TITLE THRUST REVERSER

ISSUE NO. **ITEM: 7815**

CHG. NO. **3**

DRAWING NO. **65-4253**

SHT. **1**

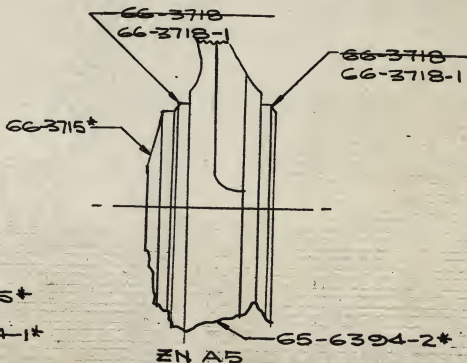
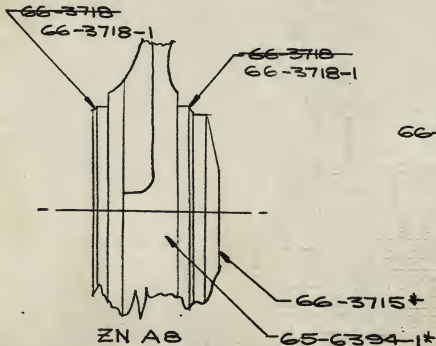
SEC. NO.

ALL

CHG. EFF.

PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
1-28	65-4253	✓	4 66-3718	BEARING						
1-28		✓	4 66-3718-1	BEARING						

CHANGE PARTS LIST AS SHOWN ABOVE;
CHANGE CALLOUTS IN ZN'S A8 & A5 AS SHOWN BELOW;
* ADCN REF ONLY



AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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1-66 IF NOT PROCESS

MODEL 707	274-20-52 DWG. REC. CLK. 274-20-57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ADN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION .50 HOLE REQ'D TO GAIN REASON: ACCESS TO 1/4" RIVET FOR INSTL. OF 66-3861 HOOK. (MFG. FACILITY)		A ISSUE NO. PRR 10087 CHG. NO. 72 & 74 SEC. NO. 1 THRU 199 301 THRU 1999 CHG. EFF.		MID FAIRING INSTL. ENG. NAC. STRUT DWG. TITLE ADCN DRAWING NO. 3-5-88795 SHT. 2A				
DRAFTED M.R. MATTESON	5/1/57	RELEASE 6-20-57 CB	B/P GROUP ROHR 4-1237 REQUESTED							
CHECKED J. DARTON	5/1/57									
STRESS W. E. G. Grew	5/1/57									
APPROVED E. C. R. R. R. R.	5/1/57	P								
APPROVED H. H. H. H.	5-8-57	PROD. INFO.								
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P

ADD .50 HOLE IN 3023 & 3024 AS SHOWN BELOW:

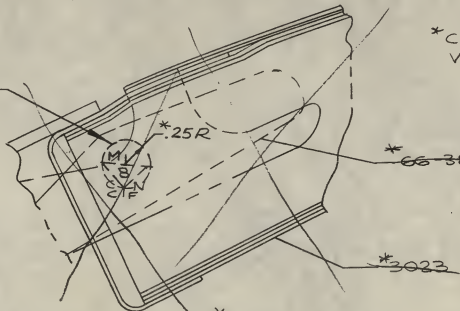
ADCN #4 CANCELS ADCN R-3

REASON: 66-3861
CAN BE RIVETED TO
-3019 & -3020 PRIOR TO
INST.

*CHG. CORRESPONDING
VIEWS TO AGREE.

*ADD

.50 DIA. HOLE IN
-3023 & 3024 ONLY.



*66-3861

*3023

*ZONE C3

<input type="checkbox"/> BAC RELEASED	<input type="checkbox"/> KC-135
<input checked="" type="checkbox"/> CANCELED BY BAC ADN # 707	
SEE HOLE #4 THIS SHEET	
CHECKED	Calhoun 5/1/57
CHECKED	
APPROV. D	H. H. H. H. 6/1/57

B2

HINGE STA. 204.45

*ADCN REF. ONLY

P REWORK EXISTING PARTS NOT INSTALLED.

KC-135 NOT AFFECTED.

APR 6/1/8

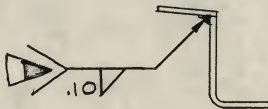
AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN ING	DWG SHEET NO.
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J.P. Moore

6.50 17

MODEL 707		DWG. REC. CLK 7-17-57		BOEING AIRPLANE COMPANY		RING STIFFENER SEGMENT-ENGINE DWG. TITLE EXHAUST PLUG	
DRAFTER: AL FREEMAN		RELEASE 7-17-57		DRAWING DEPARTMENT AUTHORIZATION		ISSUE No.	
CHECKED: HUBBARD		B/P GROUP REQUESTED R. PEARSON		REASON: THE DWG WILL NOT BE CHANGED		DDA No.	
STRESS APPROVED 7-18		PROD INFO		TO PROVIDE OPTIONAL CONSTRUCTION		DRAWING No.	
APPROVED		SHOP INFO		CHG. No.		ITEM 7811	
APPROVED		ELR OR DCR		SEC. No. 78		1 65-7017	
PARTS LIST ZONE		REPLACES		REQD.		CHG EFF	
PART NUMBER		NOMENCLATURE		ZONE CODE		STOCK SIZE (APPROX. NET)	
MATERIAL		HEAT TREAT		FINISH		P	

-1, -2, -3 SEGMENTS MAY BE MADE FROM TWO PIECES.



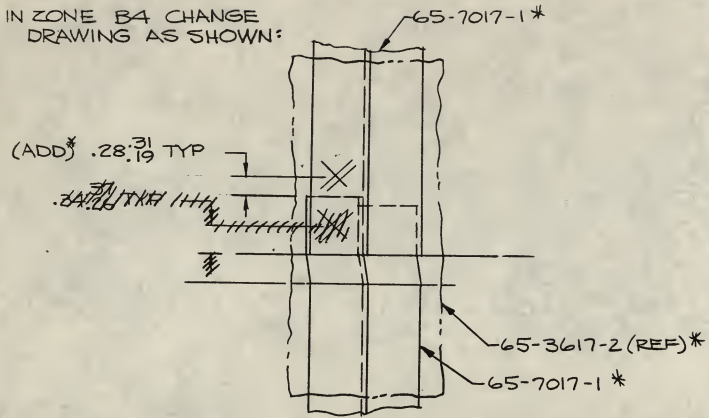
 INERT TUNGSTEN ARC WELD PER BAC 5932

6-50 17 2nd. 1950

MODEL 707	217-17-57 DWG. REC. CLK	BOEING AIRPLANE COMPANY		RING STIFFENING ENGINE EXHAUST PLUG	
DRAFTED AL FREEMAN	7-12-57	ADVANCE DRAWING CHANGE NOTICE		DWG. TITLE INSTALLATION	
CHECKED SHUMAN	7-12	THE DWG. WILL BE CHANGED TO INCLUDE THIS ADON		ISSUE NO.	ADCN
STRESS		<input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION		ITEM 7811	DRAWING NO.
APPROVED <i>[Signature]</i>	7-16	REASON:		ENG. NO. 1	65-7020
		MANUFACTURING FACILITY		SEC. NO. 78	
APPROVED		PROD. INFO.		CHG. EFF.	

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
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IN ZONE BA CHANGE DRAWING AS SHOWN:



* ADON REF ONLY

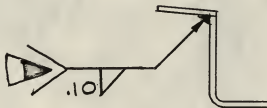
AIRP. SEC. NO.	QTY. PER AIRP	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG. SHEET NO.
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REPRODUCIBLE TO 100% OF ORIGINAL

6-50 17

MODEL 707		DWG REC CLK 7-17-57		BOEING AIRPLANE COMPANY DRAWING DEPARTURE AUTHORIZATION THE DWG WILL NOT BE CHANGED REASON: TO PROVIDE OPTIONAL CONSTRUCTION		RING STIFFENER SEGMENT - ENGINE DWG TITLE EXHAUST PLUG		ISSUE No.		DDA No.		DRAWING No.	
DRAFTED AL FREEMAN		RELEASE 7-17-57				ITEM 7811		1		65-7017			
CHECKED HUMAN		B/P GROUP REQUESTED R. PEARSON				DWG. No.							
STRESS 708		PROD INFO				SEC. No. 78							
APPROVED 7-18		SHOP INFO											
APPROVED		ELR OR DCR				CHG EFF							
PARTS LIST ZONE	REPLACES	REQD.	PART NUMBER	NOMENCLATURE		ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P		

-1, -2, -3 SEGMENTS MAY BE MADE FROM TWO PIECES:



INERT TUNGSTEN ARC WELD PER BAC 5932

MODEL	707-120	277-15-57
DRAFTED	EIS	7-15-57
CHECKED	E. White	7-15-57
STRESS	—	ROHR
APPROVED	R. Chern	6/24/57
APPROVED	Li	6/24/57

BOEING AIRPLANE COMPANY
ADVANCE DRAWING CHANGE NOTICE
 THE DWG WILL BE CHANGED TO INCLUDE THE ADDN
☐ DEVIATION ☒ VARIATION
 REASON: DETAIL PART NOS
 OMITTED & NUT PLATE
 INCORRECTLY CALLED OUT.
 (ENG'G ERROR)

ISSUE NO.
 ITEM 7813
 CHG. NO.
 SEC. NO. 78
 ALL
 CHG. EFF.

NOT PROCESS
 CHANNEL FAIRING
 SUPPORT, SOUND
 DWG. TITLE SUPPLEMENTARY ASSY OF
 AD CN
 DRAWING NO. R1 69-4948
 SHT. —

APPROVED

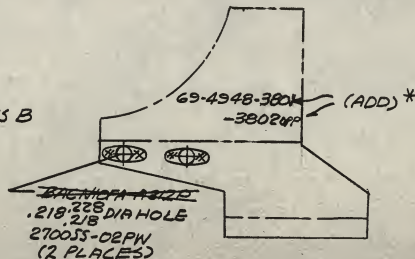
Chkd. By: [Signature]
 MATERIAL: [Blank]
 By: [Signature]
 Date: 7-11
 Boeing Airp. Co.-Transport Div.

PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)
I-4		2	BACNIDFA-A312P	NUT PLATE		
I-2			69-4948-2	OPP 69-4948-1		
I-1			69-4948-1	CHANNEL ASSY OF		
NEW	BACNIDFA-A312P	✓	2	2700SS-02PW		NUT PLATE, 1200P (BAC NIDFA-A312P) NUTT-SHEL CO., 811 AIRWAY
NEW		✓	1	-3802		036X60X8.0
NEW		✓	1	-3801		036X6.0X8.0
NEW	69-4948-2		-	69-4948-2		OPP 69-4948-1
NEW	69-4948-1		-	69-4948-1		CHANNEL ASSY OF

REVISE P/L AS SHOWN ABOVE
 REVISE DWG AS SHOWN BELOW

ADD TO GENERAL NOTES:
 * SPOTWELD PER BAC 5933 CLASS B

* ADCN REF



AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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1-54# REPRODUCIBLE TO IPD & ROHR

MODEL 707		DWG REC CLK 7-15-57		BOEING AIRPLANE COMPANY DRAWING DEPARTURE AUTHORIZATION THE DWG WILL NOT BE CHANGED REASON: NEW HI-TEMP BEARING NOT AVAILABLE AT THIS TIME.		DIRECTIONAL VALVE ASSY EXTEND DWG TITLE THEUST. REVERSER		DDA No.		DRAWING No.											
DRAFTED J.P. WEED		RELEASE 7-15-57				ISSUE No.	7832		1	69-4902											
CHECKED E. P. HARRIS		B/P GROUP PEARSON R. REQUESTED				CHG. No.															
STRESS		PROD INFO				SEC. No.															
APPROVED		SHOP INFO		CHG EFF																	
APPROVED		ELR OR DCR																			
APPROVED																					
PARTS LIST ZONE		REPLACES		REQD.		PART NUMBER		NOMENCLATURE		ZONE CODE		STOCK SIZE (APPROX. NET)		MATERIAL		HEAT TREAT		FINISH		P	
		69-4902		✓		RAP 3MS-51		BEARING ROD END BALL (BAE-BIOA-680)				MARLIN Rockwell Corp JAMES TOWN, N.Y.									
				✓		RA 3MS		BEARING ROD END BALL				FAFNIK BROS. CO. NEW BRITAIN CONN (ORIGIN.)									



REMOVE NON-METALLIC SEALS & REPACK WITH SHELL 21176A
SILICONE GREASE.

OPTIONAL: REPLACE NON-METALLIC SEALS WITH
TEFLON SEALS.



FIRST TWO UNITS. MFG'D BY ROHR ONLY



FIRST FOUR UNITS MFG'D BY IPD ONLY

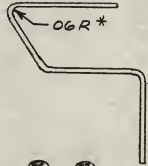
MODEL 707-120	87-15-57	BOEING AIRPLANE COMPANY	A		8-5414	
DRAFTED E15	6-28-57	ADVANCE DRAWING CHANGE NOTICE	BAFFLE ASSY		THRUST REVERSER	
CHECKED C. White	7/1/57	REASON: TO FACILITATE FABRICATION.	ISSUE NO.	ADCN	DRAWING NO.	SHT.
STRESS			ITEM 7812	R-1	69-4895	-
APPROVED R. Olsen	7/2/57		CHG. NO.			
APPROVED G. S.	7/1/57		SEC. NO.			
			ALL			
			CHG. EFF.			

PARTS LIST ZONE	REPLACES	REGR	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
NEW	-6-5-3-2-1	1	-3803	BAFFLE		Q31X3.0X4.50	2	-	F805	
NEW		1	-3802	BAFFLE		Q31X4.50X8.0	2	-	F805	
NEW		1	-3801	BAFFLE		Q31X4.50X4.50	2	-	F805	

REVISE P/L, ADD SECT ①-②, & ADD FLAG NOTES AS SHOWN

APPROVED	
Checked By: I. Greenup	Date: 7/11/57
Approved By: J. M. L.	Date: 7-11-57
Boeing Airp. Co.-Transport Div.	

- ▶ -3803 OPTIONAL TO -7E-10
- ▶ -3802 OPTIONAL TO -8E-11
- ▶ -3801 OPTIONAL TO -9E-12



* ADCN REF

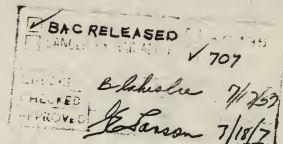
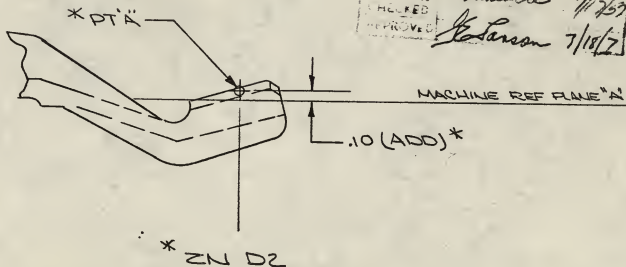
TYP FOR -3801, -3802, -3803
(SECT ①-② IDENTICAL TO SECT A-A
EXCEPT FOR ONE PIECE CONSTRUCTION)*

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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4-72 17 (NOT PROCESS)

MODEL 707	DL 7-22-57 DWG. REC. CL. 4/7-22-57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ADON <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION		ISSUE NO.	HANGER-THRUST REVERSED SHAFT-IND		ADCN			
DRAFTED C. ROSS 4/4/57	RELEASE 7. 20. 5735			ITEM 77250	DWG. TITLE NAC SHFT, REVER					
CHECKED H. DARTON 4/13/57	S/P GROUP			CHG. NO.	R-1 65-4395 -					
STRESS 4/13/57	ROHR ENGRG REQUESTED			SEC. NO. 76						
APPROVED 4/16/57	PROD. INFO.	REASON: PT "A" IS NOT LOCATED VERTICALLY (ENGRG ERROR)		1 THRU 199						
APPROVED 4/16/57				301 THRU 1999						
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P

ADD DIM TO DWG AS SHOWN BELOW



* ADCN REF

▷ RWK DETAIL PARTS & ASSYS


KC-135 NOT AFFECTED

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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AP 7/19/72

581-580 42

4-54 1T

MODEL 707	817-22-57 DWG. REC. CLK	 <p>BOEING AIRPLANE COMPANY SEATTLE 14, WASHINGTON</p> <p>ADVANCE DRAWING CHANGE NOTICE</p> <p>THIS DRAWING WILL BE CHANGED TO INCLUDE THIS DESIGN</p> <p><input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION</p> <p>REASON: TO BRING TAB BLOCK UP TO DATE</p>		A		SPECIAL RIVET CONTROL REVERSE THRUST					
DRAFTED CHRISTENSEN	7-17-57			827-22-57 RELEASE	ISSUE NO.		DWG. TITLE		ADCN	DRAWING NO.	SHT.
CHECKED				7-22-57 B.P. UNIT	PRR 9500				2	63-1440	-
STRESS					CHG. NO.						
APPROVED				REQUESTED	SEC. NO. 51						
APPROVED <i>W. Sudduth</i>	7-18-57	PROD. INFO.	NOTED								
APPROVED			CHG. EFF.								
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P	

CHANGE TAB BLOCK TO READ AS SHOWN:

51		65-2+21	707							
AIRP SEC NO.	QTY. REQ AIRP	USED ON DWG NO	MODEL	AIRPLANE SERIAL NUMBERS			PART NUMBER	RELEASE COLUMN IND	DWG. SHEET NO.	

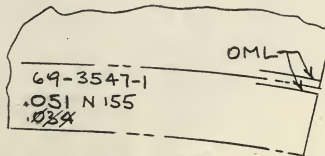
652 2T REPRODUCIBLE TO IPD & PDR

MODEL 707	876-21-57 DWG. REC. D.K. 726-21-57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ADDN <input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION REASON: TO FACILITATE ASSEMBLY		ISSUE NO. ITEM 7813 CHG. NO. SEC. NO. 78 CHG. EFF.	ANGLES - SLEEVE DOOR THRUST REVERSE DWG. TITLE ADCN DRAWING NO. SHT.		
DRAFTED PUNCOCH 6-17-57	RELEASE 6-21-57 B/P GROUP			1	69-3547	-	
CHECKED SHUMANN 6-17-57	BENNETT REQUESTED						
STRESS W. Rmz 6-18-57							
APPROVED [Signature] 6-19-57							
APPROVED	PROD. INFO.						

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
		-	-1	ANGLE - LWR	-	.034 x 10.7 x 2.7		-	F-805	R
		-	-1	ANGLE - LWR	-	.051 x 10.7 x 2.7		-	F-805	R

IN P/L CHANGE STOCK SIZE AS SHOWN ABOVE.

ON F/D CHANGE 69-3547-1 AS SHOWN:

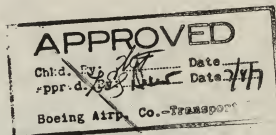
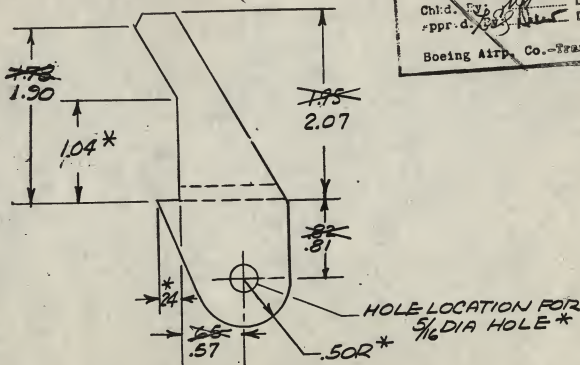


AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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11-52 3T REPRODUCIBLE TO TPD & RCH

MODEL 707-120	87-10-57 DWG. REC. CLK.	BOEING AIRPLANE COMPANY		FITTING LINK ATTACHMENT THRUST DWG. TITLE REVERSER	
DRAFTED EIS	6/19-57	ADVANCE DRAWING CHANGE NOTICE		ISSUE NO.	ADCN
CHECKED E. White	6/19-57	REASON <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION		ITEM 78/2	R1
STRESS	7-10-57 MB	HOLE LOCATION IN FITTING IS NOT IN AGREEMENT WITH GEOMETRY OF CASCADE & STRUT ASSYS		CHG. NO.	66-3341
APPROVED R. Ohern	6/21	REQUESTED NO. 10		SEC. NO. 78	
APPROVED Cus	6/21	NO. 10 PARTS MODIFIED MOD. INFO.		ALL	
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE
					STOCK SIZE (APPROX. NET)
					MATERIAL
					HEAT TREAT
					FINISH
					P

REVISE DIMS. AS SHOWN.



* ADCN REF

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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11-52 3T

REPRODUCIBLE To IPD & ROHR

MODEL	707-120	7-10-57 DWG. REC. CLK.
DRAFTED	EIS	6/13/57 7-10-57 RELEASE
CHECKED	Call White	7-10-57 S/P GROUP
STRESS		ROHR REQUESTED
APPROVED	R. Ahern	6/20 10 PARTS MACHINED PROD. INFO.
APPROVED	Gis	
PARTS LIST ZONE	REPLACES	REQD
		PART NUMBER
		NOMENCLATURE
		ZONE CODE
		STOCK SIZE (APPROX. NET)
		MATERIAL
		HEAT TREAT
		FINISH
		P

BOEING AIRPLANE COMPANY

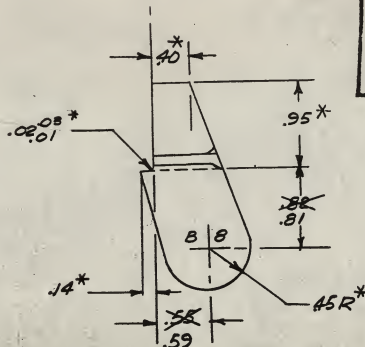
ADVANCE DRAWING CHANGE NOTICE

REASON: HOLE LOCATION IN
FITTING IS NOT IN
AGREEMENT WITH GEOMETRY
OF CASCADE STRUT ASSYS

ISSUE NO.	ITEM 7812	ADCN	DRAWING NO.	SMT.
CHG. NO.	78	R1	66-3342	
SEC. NO.	ALL			
CHG. EFF.				

REVISE DIMS. AS SHOWN

(ENGRG ERROR)



APPROVED

Chkd. By: *[Signature]* Date: *[Date]*
 Appr d: *[Signature]* Date: *[Date]*

Boeing Airp. Co.-Transport Div.

*ADCN REF

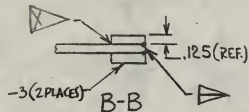
AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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REPRODUCIBLE TO IPD ONLY 4-60 17

MODEL 707	77-11-37	BOEING AIRPLANE COMPANY SEATTLE 14, WASHINGTON DRAWING DEPARTURE AUTHORIZATION THE DWG WILL NOT BE CHANGED REASON: TO FACILITATE MANUFACTURE	MCR No.	BEAM-SUPPORT THRUST REVERSER	
DRAFTED H. PUNCOCH	DWG. REC. CLK 8-28-57		SEC No. 78	DWG TITLE	
CHECKED <i>[Signature]</i>	RELEASE 7-11-58		ITEM 7812	DDA No. 2	DRAWING NO. 69-3531
STRESS <i>[Signature]</i>	B/P UNIT PRODUCTION I.P.D. REQUESTED				
STANDARDS <i>[Signature]</i>	PROD INFO				
APPROVED <i>[Signature]</i>	SNOP INFO				
APPROVED <i>[Signature]</i>	DCP No.		CHG EFF	ALL	

PARTS LIST ZONE	REPLACES	-1	REQD.	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX.)	MATERIAL	HEAT TREAT	FINISH
				69-3531	BEAM		3.0x12.18 x 2.02			
				69-3531	BEAM ASSY OF					
				1	BEAM		.06x12.2 x 2.02			
				2	FLANGE		.125x2.0 x 2.60			

ADDED TO P/L AS SHOWN ABOVE

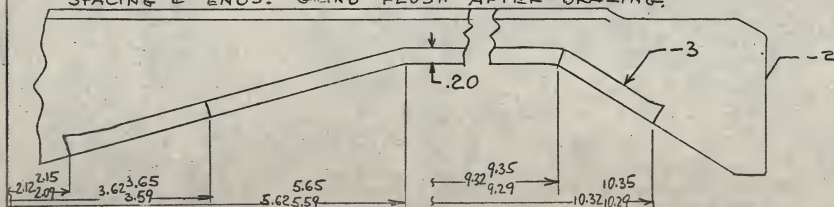
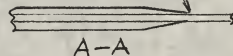


ADDED OPTIONAL ASSY METHOD, AS SHOWN
ADDED DIM. TOLERANCES & ∇ \triangleright FLAGNOTES.

.03
.00 MISMATCH ALLOWED

∇ FURNACE BRAZE ALL MATING SURFACES & INSPECT PER AMS 2675A WITH AMS 4775 HEAT RESISTANT BRAZING ALLOY.

\triangleright TACKWELD (HASTELOY "W" INERT TUNGSTEN ARC) THIS AREA, APPROX. 2" SPACING @ ENDS. GRIND FLUSH AFTER BRAZING.



POWER PLANT

12-20 REF COORD SHT CX10-126

MODEL 707		277-10-57 DWG. REC. CLK 624719/57		BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ADDN <input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION REASON: REVERSE THRUST CONTROL INSTL INTERFERENCE REF COORD SHT CX10-126		OUTBD STRUT- NACELLE ASSY OF		ADCN	DRAWING NO.	SHT.
DRAFTED J.P. THOMPSON 6-21-57 CHECKED J. RASNACK 6-27-57		RELEASE 7-13-76 S/P GROUP WATANABE 6-30-60 REQUESTED				ISSUE NO. 95000				
STRESS APPROVED <i>H. J. J. J.</i> 7/4/57		P		SEC. NO. 74		7 5-85627		2A 55		
APPROVED <i>M</i>		PROD. INFO.		1-199						
				301-1999						
				CHG. EFF.						

PARTS LIST ZONE	REPLACES	5-85627 -3000	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
33		✓	X 6	AN3-3A	BOLT						
41		✓	X 6	6800-02	BOLT RETAINER (BAC-RIOG-31)		B				

SHT 1A: CHANGE P/L AS SHOWN ABOVE:

SHT 2A:

ZN B7 VIEW C7 CHANGE CALLOUTS AS SHOWN BELOW:

 TYPICAL FOR STA. 145.82, 169.10, 180.55
 191.85, 203.45 & ~~210~~

218.228 DIA HOLE

AN 3-3A

6800-02

(7 PLACES)

(6 PLACES)

 P COMPLETED ASSEMBLIES SATISFACTORY
 PLUG OPEN HOLES WITH 2017-T3 RIVETS ON PARTS ALREADY MADE

WORK PRESS. PSI	NUMBER	REQD	NUT	SLEEVE	REQD	ZONE	SHT	TUBE OD	WALL THICK	MATERIAL	HEAT TREAT	FINISH	TUBING IDENTIFICATION	TYPE ENDS	MIN STOCK LGTH
	TUBE ASSY		END FITTINGS PER TUBE ASSY			ZONE CODE									

#17-107

7-55 27

MODEL 707	6-27-57	577-10-27 DWG. REC. CLK. 707-10-27	BOEING AIRPLANE COMPANY SEATTLE 1, WASHINGTON ADVANCE DRAWING CHANGE NOTICE THE DWG. WILL BE CHANGED TO INCLUDE THIS ADDN. <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: FACILITATE PROCUREMENT		HINGE FITTING CLAMSHELL DOOR THRUST REV. DWG. TITLE ADCCN DRAWING NO. SHT.
DRAFTED M. PUNCOCH	7-10-57	RELEASE 7-10-57 MB B/P GROUP PEARSON REQUESTED	ISSUE NO. CHG. NO. 7815 SEC. NO. 18 CHG. EFF. ALL		1 65-6394 -
CHECKED <i>Frangol</i>	7/5/57				
STRESS <i>W. Benz</i>	7/5/57				
STANDARDS					
APPROVED <i>908</i>	<i>8/1/57</i>	PROD. INFO.			

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
		-	65-6394-1	HINGE FITTING		1.5 x 11.0 x 5.0			F -8.05	R

ADD STOCK SIZE & FLAG AS SHOWN:

CHANGE FLAGNOTE AS SHOWN BELOW:

N-155 CORROSION RESISTANT STEEL BAR
 PER AMS 5768 B. OPTIONAL HASTELLOY 'X' PLATE
 PER AMS 5536 A.

MATERIAL PURCHASED BY P.R. 218848

WORK PRESS. PSI	NUMBER	REQD	NUT	SLEEVE	REQD	ZONE SHT	TUBE OD	WALL THICK	MATERIAL	HEAT TREAT	FINISH	TUBING IDENTIFICATION	TYPE ENDS	MIN STOCK LGTH
	TUBE ASSY		END FITTINGS PER TUBE ASSY			ZONE CODE								

7-55

37

THRUST REVERSER		7-7-11-50 DWG. REC. CLK.		BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG. WILL BE CHANGED TO INCLUDE THIS ACTION <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: STRESS RELIEF NOT REQUIRED,		H		SLEEVE DOOR-THRUST REVERSER, ASSY OF					
DRAFTED D. KREINER 7-5-7		RELEASE 7-10-57 HIC				ISSUE NO.		ADCN		DRAWING NO.		BMT	
CHECKED M. PUNCOCH 7-5-57		B/P GROUP				ITEM 7813		1		65-4290		1	
STRESS 7-5-58		PEARSON				CHG. NO.							
APPROVED		REQUESTED		CHG. EFF.		78							
APPROVED 8/8/57		PROD. INFO.		ALL									
PARTS LIST ZONE	REPLACES	READ	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P			
			-	65-4290	SLEEVE DOOR, ASSY OF C4								

NOTE: CHANGE P/L AS SHOWN ABOVE.
 DELETE RELIEF NOTE AS SHOWN BELOW.

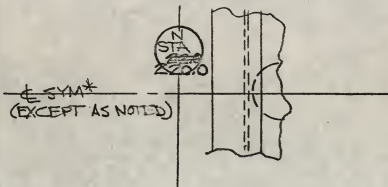
~~STRESS RELIEF AFTER ASSY..... & AIR COOL.~~

AIRP. SEC. NO.	QTY PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS				PART NUMBER	RELEASE COLUMN IND	DWG. SHEET NO.
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MODEL 707	7-5-57	BOEING AIRPLANE COMPANY	STRUT, EXHAUST PLUG, ASSY OF			
DRAFTED AL FREEMAN 6/25/57	7-5-57	ADVANCE DRAWING CHANGE NOTICE REASON: <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION	DWG. TITLE			
CHECKED M. PUNCOCH 7-5-57	7-5-57		ADCN	DRAWING NO.	SHT	
STRESS. _____	PEARSON REQUESTED	REASON: ENGR ERROR	ITEM 7811	1	65-4286	2
APPROVED <i>8/11/57</i>	PROD. INFO.		SEC. NO. 78			
			CHG. EFF.			

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
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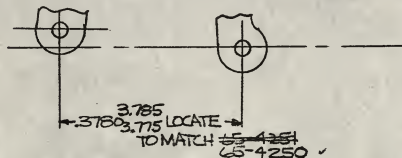
IN ZONE B4 CHANGE PICTURE AS SHOWN:



IN ZONE B5 CHANGE CALLOUT AS SHOWN:

30.755
30.750 30.745 DIA
LOCATE TO MATCH
~~65-4251~~
65-4250

IN ZONE A4 CHANGE CALLOUT AS SHOWN:



* ADCN REF ONLY

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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7-55-27 REFERENCE TO 100-8000

MODEL	707-120	DWG. REC. CLK.	7-10-57
DRAFTED	EIS	6-19-57	RELEASE 7-10-57 ME
CHECKED	E. M. White	4/20/57	B.P. GROUP
STRESS			REQUESTED
APPROVED	Rahem	6/7	NONE
APPROVED	as	6/20	MACHINED

BOEING AIRPLANE COMPANY

ADVANCE

DRAWING CHANGE NOTICE

THE DWG WILL BE CHANGED TO INCLUDE THIS ADN

☐ DEVIATION ☒ VARIATION

REASON: MACHINE DIMS
DO NOT PERMIT CORRECT
LOCATION OF CLAMSHELL
SUPPORT BEAMS.

ISSUE NO.	ADCN	DRAWING NO.	SHT.
ITEM 7816	R2	65-4268	-
CHG. NO.			
SEC. NO.	78		
ALL			
CHG. EFF.			

CLAMSHELL SUPPORT
THRUST REVERSE R

PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
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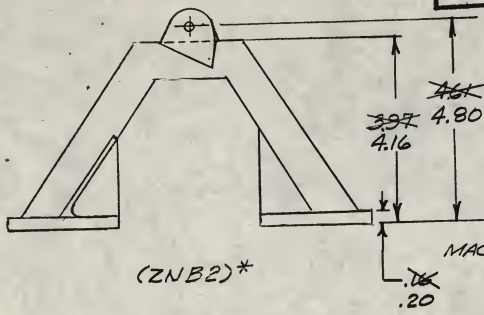
IN ZNB2, REVISE DIMS AS SHOWN

APPROVED

Chkd. By: *[Signature]* Date: *7/17*

Appr. d. By: *[Signature]* Date: *7/17*

Boeing Airp. Co.-Transport Div.



MACH REF PLANE "B" *

*ADCN REF

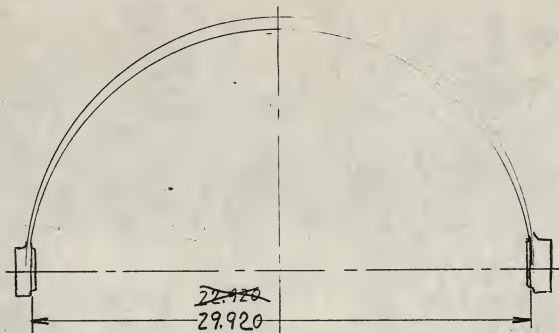
AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG. SHEET NO.
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7-53 27

MODEL	707	277-10-57 DWG. REC. CLK	<div style="border: 2px solid black; padding: 5px; display: inline-block;"> ADVANCE DRAWING CHANGE NOTICE <small>THE DRAWING WILL BE CHANGED TO INCLUDE THIS ACTION</small> <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION </div>		CLAMSHELL INSTALLATION THRUST REVERSER	DWG. TITLE	ADCN	DRAWING NO.	SHT		
DRAFTED	M. PUNCOCH	6-27-57			RELEASE	7-10-57MS	ISSUE NO.				
CHECKED	<i>Friedland</i>	7/6/57			B/P GROUP		CHG. NO.	7815	2	65-4253	-
STRESS	—				PEARSON		SEC. NO.	78			
STANDARDS					REQUESTED						
APPROVED	<i>ON 7/9</i>		PROD. INFO.		CHG. EFF.	ALL					

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
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CHANGE DIM. AS SHOWN:



REAR VIEW

			WORK PRESS. PSI	NUMBER	REQD	NUT	SLEEVE	REQD	ZONE	SHT	TUBE OD	WALL THICK	MATERIAL	HEAT TREAT	FINISH	TUBING IDENTIFICATION	TYPE ENDS	MIN STOCK LGTH
				TUBE ASSY		END FITTINGS PER TUBE ASSY				ZONE CODE								

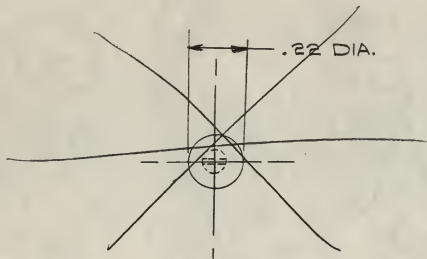
CONTROLS

5-56 1-T

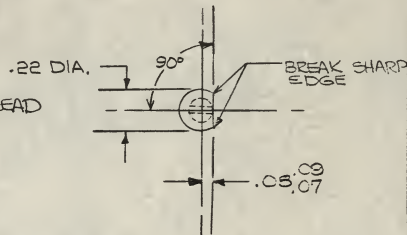
MODEL 707	SWG REC CLR 6/17 4/25/57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ACTION <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION		SPECIAL RIVET CONTROL REVERSE THRUST	
DRAFTED SCHNELLE 6/17	RELEASE 6-25-57	REASON: INTERFERENCE WITH MATING PARTS		ISSUE NO. A	DWG. TITLE
CHECKED M. Miller 4/25/57	S P GROUP R REQUESTED	CHG. NO. PR 95000		ADCN	DRAWING NO.
STRESS	P PROD. INFO.	SEC. NO. 51			
APPROVED		1-1999			
APPROVED Bailey 6-19-57		CHG EFF.			
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE
					STOCK SIZE (APPROX. NET)
					MATERIAL
					HEAT TREAT
					FINISH
					P

A DCN

CHG VIEW AS SHOWN BELOW-



TO READ



ELR # 179284 IRON FIREMAN

6/22

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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7-50 17 NOT PROCESS

MODEL 707-120	217-3-52 DWG. REC. CLK	BOEING AIRPLANE COMPANY		BEAM - SUPPORT THRUST REVERSER	
DRAFTED E. WHITE	6/29/57 RELEASE	ADVANCE DRAWING CHANGE NOTICE		DWG. TITLE	
CHECKED EIS	6/29/57 B/P GROUP	THE DWG WILL BE CHANGED TO INCLUDE THIS ADDN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION		ISSUE NO.	ADCN
STRESS —	ROHR REQUESTED	REASON: DIMENSION OMITTED		ITEM 7812	DRAWING NO.
APPROVED	6/29/57	(ENGRG ERROR)		CHG. NO.	SMT.
APPROVED	6/29/57			SEC. NO. 78	
				ALL	
				CHG. EFF.	

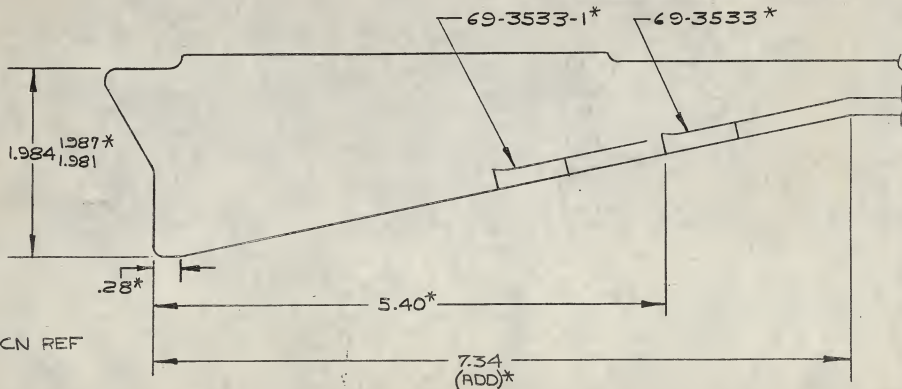
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (LBS)	MATERIAL	HEAT TREAT	FINISH	P
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ADD DIMENSION AS SHOWN BELOW.

APPROVED

Calcd. By: P. K. COCH Dtd: 6-28-57
 Apprd. By: [Signature] Dtd: 7-2-57

Boeing Airp. Co.-Transport Div.



AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS			PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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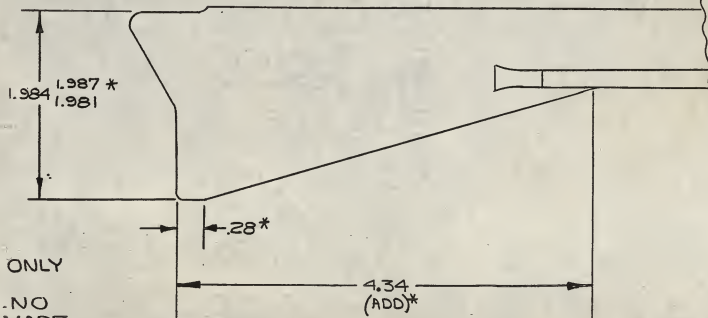
7-50

NOT PROCESS 17.


MODEL 707-120		277-3-51 DWG. REC. CLK RYL713/57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ADDN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: DIMENSION OMITTED. (ENGRG ERROR)		ISSUE NO.	BEAM-SUPPORT THRUST REVERSER				
DRAFTED E. WHITE	6/24/57	RELEASE 7-3-714			CHG. NO.	ADCN	DRAWING NO.	SHT.		
CHECKED EIS	6/24/57	B/P GROUP			ITEM 7812	R-1	69-3530	-		
STRESS -		LOFT REQUESTED			SEC. NO. 78					
APPROVED <i>ghern</i>	6/20	PROD. INFO.			ALL					
APPROVED <i>gls</i>			CHG. EFF.							
PARTS LIST ZONE	REPLACES	REGD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P

ADD DIMENSION AS SHOWN BELOW.

APPROVED
Chkd. By: <i>ML</i> Date <i>7-1-7</i>
Appr'd. By: <i>gls</i> Date <i>7-1-7</i>
Boeing Airp. Co.-Transport Div.



* ADCN REF ONLY

 NONE NO
PARTS MADE

AIRPLANE SERIAL NUMBERS

AIRP. SEC. NO.	QTY. PER. AIRP.	USED ON DWG. NO.	MODEL
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PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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MODEL 707	7-7-58 DWG REC CLK	BOEING AIRPLANE COMPANY		7-58 17		EXHAUST PLUG INSTALLATION				
DRAFTED AL FREEMAN 4/29/57	7/2/57 RELEASE	ADVANCE DRAWING CHANGE NOTICE		ISSUE NO.		DWG TITLE				
CHECKED DC.K. 7/2/57	7/2/57 S.P. GROUP	REASON: ENGR ERROR		ITEM 7811 CHG. NO.		ADCN DRAWING NO. 2 65-3617 2				
STRESS	FEARSON REQUESTED			SEC. NO.						
APPROVED <i>[Signature]</i> 7-2-58				CHG. EFF.						
APPROVED	PROD. INFO.									
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P

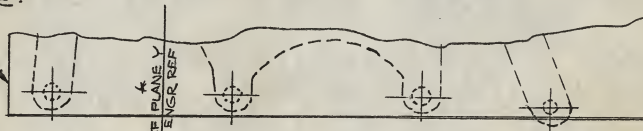
IN ZONE D6 ON 69-3541 CHANGE SOLID HOLES TO DOTTED HOLES AS PER PICTURE:

*69-3541



IN ZONE A6 ON 69-3541 CHANGE SOLID HOLES TO DOTTED HOLES AS PER PICTURE:

*69-3541

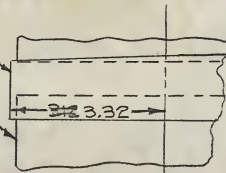


*
REF PLANE Y
ENGR REF
*
220
ENGR REF

IN ZONE A6 CHANGE DIMENSION AS SHOWN:

*69-3542

*69-3543



* ADCN REF ONLY

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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FLIGHT TEST 707
 4-22-57
 DRAFTED F.H. STARR
 CHECKED B. MISHEL 4-23-57
 STRESS E. R. K...
 APPROVED [Signature]
 APPROVED [Signature]
 APPROVED [Signature]

DI 7-2-52
 DWG REC CKK
 RELEASE 2-11-57
 B/P GROUP 2-7-57
 REQUESTED 2-7-57
 PROD INFO [P]
 SHOP INFO
 ELR OR DCR

BOEING AIRPLANE COMPANY

DRAWING DEPARTURE AUTHORIZATION
 THE DWG WILL NOT BE CHANGED

REASON:
 TO PROVIDE DUCT WITH
 DOUBLER FOR MOUNTING TOTAL
 PRESSURE PICKUP INSTL PER
 E.T. DWG. 29-5463 ON
 ENGINE NO. 4

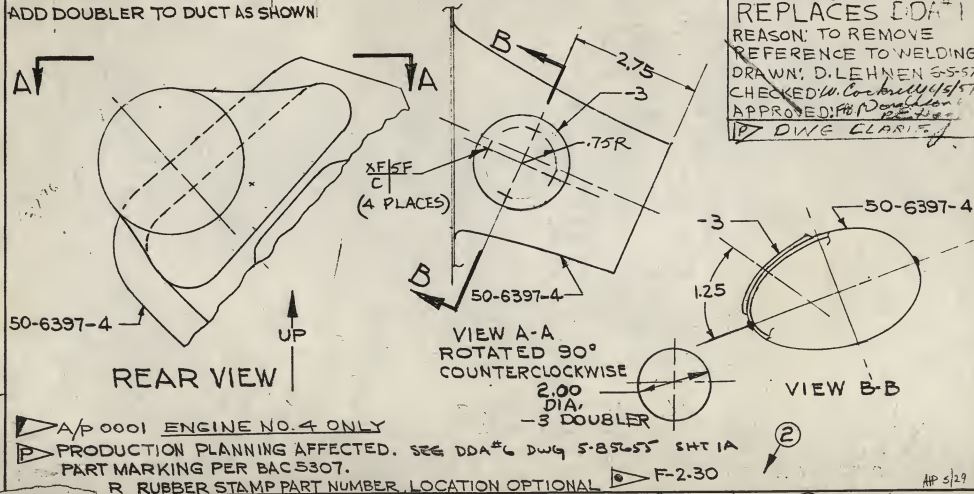
DUCT-ALTERNATOR
 COOLING, ASSY OF

ISSUE NO. 19980
 CHG. NO. 2
 SEC. NO. 71
 CHG EFF

DDA TITLE
 DDA NO. 1
 DRAWING NO. 50-6397

PARTS LIST ZONE	REPLACES	50-6397 -4	REQD.	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
ADD TO P/L AS SHOWN	✓	-	1	-3 -4	DOUBLER DUCT-ASSY OF		081X1.5x1.5 MAKE FROM 50-6397	6061-T4 BARE SHT QQ-A-327 T4 TEMP	(2)	[Symbol]	R R

ADD DOUBLER TO DUCT AS SHOWN



AP 0001 ENGINE NO. 4 ONLY
 PRODUCTION PLANNING AFFECTED. SEE DDA #6 DWG 5-85655 SHT 1A
 PART MARKING PER BAC 5307.
 R RUBBER STAMP PART NUMBER, LOCATION OPTIONAL

SP 6-4510 5-27-7 9 Corr 6-4510 6/20/7

AP 5/29

MODEL	707	317-2-57
DRAFTED	G HARWOOD	6-18
CHECKED	F. McDougall	6/18/57
STRESS	J. C. Brank	6/19-57
APPROVED	A. Donaldson	6/20

BOEING AIRPLANE COMPANY
ADVANCE DRAWING CHANGE NOTICE
 RE: THIS WILL BE CHANGED TO INCLUDE THIS ADDN
☐ DEVIATION ☐ VARIATION
 REASON: TO CALL OUT REQ'D
 HOLE SIZE
 (ENGR ERROR)

5-70 17
 BRACKET-TURBINE INLET
 DUCT, TURBO COMP.

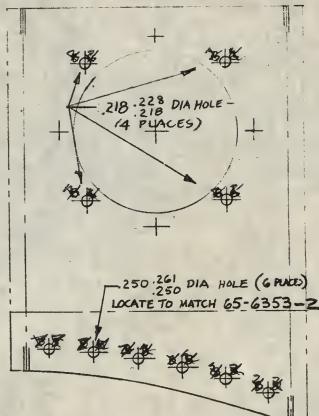
ISSUE NO.	ADCN	DRAWING NO.	SHT.
PR2 95000		1 69-3167	-
CHG. NO.			
SEC. NO. 76			
1-199			
301-1999			
CHG. EFF.			

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
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FROM
 REMOVE GENERAL NOTES & REVISE HOLE CALL-OUT AS SHOWN BELOW

B18 HOLE LOCATION FOR 1/4 DIA BOLT


B19 HOLE LOCATION FOR 3/16 DIA BOLT




AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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POWER PLANT

3.60 1T

MODEL KC-135		5-10-52 DWG. REC 2LK R/R 7/10/57		BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ACTION <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: TO ALLOW INSTALLATION OF PUMP ON APL #3 IN LIEU OF APL #1		PUMP INSTL-HYDRAULIC J57-P29W ENGINE DWG. TITLE ENG No 2 CTESTON				
DRAFTED Y. SCHUMACHER 7-57		RELEASE 7-11-57 SEC.				ISSUE NO. SFT 8027		ADCN 1		
CHECKED J.W. Wood 7/5/77		S/P GROUP 3-1000 KUSE REQUESTED		CHG. NO. 76		DRAWING NO. 65-3976				
STRESS		PROD. INFO. 		SEC. NO.						
APPROVED W. Schumacher 7-8				553120 ONLY						
APPROVED				CHG. EFF.						
PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P

 ANY PARTS FABRICATED FOR APL. 55-3118 MAY BE USED ON APL. 55-3120.

REVISE TAB BLOCK AS SHOWN BELOW

76 1 DG-1029 KC135 55-3120 ONLY

65-3976

wm 7-9-7

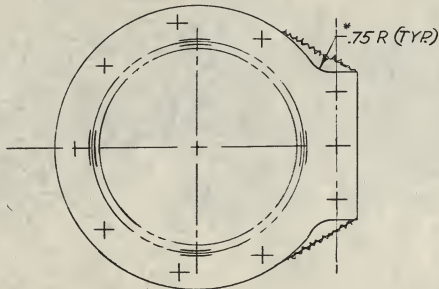
~~76 1 DG-1029 KC135 55-3118 ONLY~~~~65-3976~~

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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2-60 1T NOT PROCESS.

MODEL <u>707</u>		DWG. REC. CLK. <u>7-3-57</u>		BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ADCN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: TO ELIMINATE INTERFERENCE WITH RIVETS ON ASSY (ENGRG ERROR)		A		FLANGE INBOARD STRUT T.A.I. DUCT SEAL.			
DRAFTED <u>CW HULL</u>		RELEASE <u>7-3-57</u>				ISSUE NO. <u>ITEM 77810</u>		ADCN <u>R-1</u>		DRAWING NO. <u>66-1654</u>	
CHECKED <u>H. DARTON</u>		S/P GROUP <u>ROHR</u>				CHG. NO. <u>76</u>					
STRESS <u>W. Enkle</u>		REQUESTED <u>4-1395</u>				SEC. NO. <u>1 THRU 139</u>					
APPROVED <u>[Signature]</u>		PROD. INFO. <u>P</u>				301 THRU 1999					
APPROVED <u>[Signature]</u>						CHG. EFF.					
PARTS LIST ZONE		REPLACES		REQD		PART NUMBER		NOMENCLATURE		ZONE CODE	
								STOCK SIZE (APPROX. NET)		MATERIAL	
								HEAT TREAT		FINISH	
										P	

REVISE FACE OF DWG AS SHOWN BELOW.



* ADCN REF ONLY

P REWORK EXISTING PARTS & ASSEMBLIES NOT INSTALLED

KC135 NOT AFFECTED.

<input checked="" type="checkbox"/> BAC RELEASED	<input type="checkbox"/> KC135
<input type="checkbox"/> BAC NOT RELEASED	<input type="checkbox"/> KC135
CHECKED <u>[Signature]</u>	<u>7/14/57</u>
CHECKED <u>[Signature]</u>	<u>7/14/57</u>
APPROVED <u>[Signature]</u>	<u>7/14/57</u>

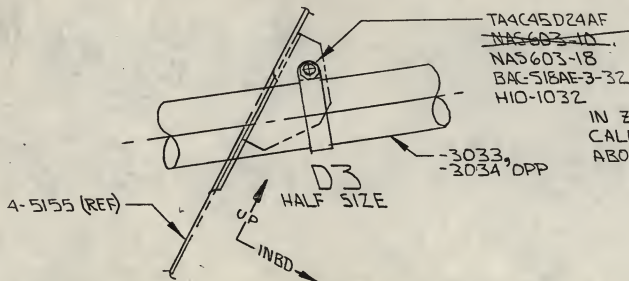
AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS				PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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581-529 A2

707		DWG. REC. CLK 02/12/57		ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ACTION <input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION REASON: TO PREVENT TUBE FROM RIDING IN CUT-OUT		FUEL		SEC 2							
BOR D. WILLIAMS		7-3-7				ISSUE NO.		DWG. TITLE		SHT.					
DRAFTED E. R. Seeling		7-3-57		RELEASE 7-17-57 MB BIP GROUP WAITING 6-3060 REQUESTED		ITEM 95000		16		5-86584		1A			
STRESS						CHG. NO.		22		14		5-86584		2A	
APPROVED						SEC. NO.									
APPROVED <i>Vachet</i>		7-5-		PROD. INFO.		1-1999									
						CHG. EFF.									

PARTS LIST ZONE	REPLACES	3002	3001	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
46		X	X	1	NAS603-10	SCREW	B32A					
	NAS603-10	✓	✓	1	NAS603-18	SCREW	D32A					
	NEW	✓	✓	1	BAC518AE-3-32	SPACER-BOWDING	D32A					

ON SHT 1A, CHG P/L AS SHOWN ABOVE

IN EN D3, SHT 2A, CHG
CALLOUT AS SHOWN AT
ABOVE LEFT

△ AIRPLANE 001 IN ACCORD
REWORK A/P 2 & ON

AIRP. SEC.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS					PART NUMBER	RELEASE COLUMN IND	DWG. SHEET NO
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5-63 / TNOT PROCESS

MODEL 707		DWG. REC. CLK 677-17-57		BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ACTION <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: BEND UP INFO. CAUSES PART TO BE FORMED INCORRECTLY RELATIVE TO ADJACENT STRUCTURE (ENGRG ERROR)		SUPPORT BRACKET-DRAIN TANK, COMBUSTION		DWG. TITLE CHAMBER		
M.R. MATTESON DRAFTED		RELEASE 907-18/57				ISSUE NO. PRR 95000		ADCN R-1		DRAWING NO. 63-1822
CHECKED <i>DAVEN</i>		S/P GROUP ROHR 4-1500		SEC. NO. 76						
STRESS <i>6/13</i>		REQUESTED		1 THRU 199						
APPROVED <i>GP</i>		PROD. INFO.		301 THRU 1999						
APPROVED <i>GP</i>				CHG. EFF.						
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P

REVISE BEND CALLOUT AS SHOWN:

B DR DN 90° x .09 R
 & BEND

1540 RELEASED TO 62-135
 1540 CANCELLED BY ENG. REC. 11/1/57
 CHECKED *W. A. D. Co.*
 CHECKED *W. A. D. Co.*
 APPROVED *W. A. D. Co.* 7/1/57

EXISTING PARTS MAY BE USED BY REMOVING AS APPLICABLE -2 & STAMPING -1 & REMOVING -1 & STAMPING -2.

KC-135 NOT AFFECTED.

AIRP. NO.	QTY. SEC. AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS			PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO
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985-185

A D C N

12

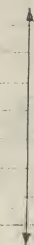
MODEL 107		27 62557 DWG. REC. CLK.		BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE REASON: RELOCATION OF CABIN PRESSURE CONTROL SYSTEM PRESSURE SOURCE REL. DWG. WILL BE CHANGED TO INCLUDE THIS DESIGN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION				4-79 1T		PLUMBING INSTL OUTBD NAC STRUT											
DRAFTED S. Berry		6-18-7						RELEASE 6-26-57		B		DWG. TITLE									
CHECKED <i>Donaldson</i>		6-18-7						B/P GROUP AIR COND		ISSUE NO. PRR 10797		ADCN		DRAWING NO.		SHT					
STRESS 277 4/18								REQUESTED		CHG. NO.		5		50-5548		1					
APPROVED <i>Donaldson</i>				PROD. INFO.				SEC. NO. 79													
								1499 ± 301-1333													
								CHG. EFF.													
PARTS LIST ZONE	REPLACES	-4-3-2-1	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P										
	NEW	✓✓✓✓	1	MS21513D10	PLUG																
	NEW	✓✓✓✓	1	150701-10	PACKING O-RING (BAC PIHK-10)							STILLMAN RUBBER CO CULVER CITY, CAL. (OR EQV)									
ADD TO P/L AS SHOWN																					
<div style="display: flex; justify-content: space-between; align-items: flex-end;"> <table border="1" style="width: 20%;"> <tr> <td>AIRP. SEC. NO.</td> <td>QTY. PER AIRP.</td> <td>USED ON DWG. NO.</td> <td>MODEL</td> </tr> </table> <table border="1" style="width: 50%; text-align: center;"> <tr> <td colspan="2">AIRPLANE SERIAL NUMBERS</td> </tr> </table> <table border="1" style="width: 20%;"> <tr> <td>PART NUMBER</td> <td>RELEASE COLUMN IND</td> <td>DWG SHEET NO.</td> </tr> </table> </div>													AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL																		
AIRPLANE SERIAL NUMBERS																					
PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.																			

MODEL 707		7-6-57 DWG. REC. CKR.		BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DRAWING WILL BE CHANGED TO INCLUDE THIS ACTION <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: RELOCATION OF CABIN PRESSURE CONTROL SYSTEM PR		A		PLUMBING INSTL INBOARD NACELLE STRUT															
DRAFTED S. Berry		6/11/7				ISSUE NO. PRR 10747		DWG. TITLE		ACCN		DRAWING NO.		SHT									
CHECKED <i>[Signature]</i>		6/14/7		B/P GROUP		CHG. NO.		6		50-5547		1											
APPROVED <i>[Signature]</i>		6/12		AIR COND		SEC. NO. 77																	
APPROVED <i>[Signature]</i>				REQUESTED		1-33-391- CHG. EFF. 1959																	
APPROVED <i>[Signature]</i>				PROD. INFO.																			
PARTS LIST ZONE		REPLACES		-3 -1		REQD		PART NUMBER		NOMENCLATURE		ZONE CODE		STOCK SIZE (APPROX. NET)		MATERIAL		HEAT TREAT		FINISH		P	

CABIN PRESSURIZATION

SEE ADEN 7 FOR REST OF THIS CHANGE.

NEW



✓	✓	2	MS21908D10	ELBOW-FT, BH. 90°
✓	✓	2	MS21907D10	ELBOW-FT, BH. 45°
✓	✓	7	AN860-141GL	WASHER
✓	✓	1	C-9523-163	FLEXIBLE TUBE ASSY
✓	✓	4	AN324-10D	NUT-JAM
✓	✓	1	82626CS-24	CLAMP TUBE SUPPORT (BAC-C10BH-24A)
✓	✓	3	82626CS-10	CLAMP TUBE SUPPORT (BAC-C10BH-10A)
✓	✓	1	H10-1032	NUT (BAC-NIOBY-53)
✓	✓	1	82626CS-20	CLAMP (BAC-C10BH-20A)
✓	✓	3	AN520-10RB	SCREW-MACHINE

NEW

✓	✓	1	150701-10	PACKING-O-RING (BAC-P11K-10)
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ADD TO GENERAL NOTES

ADD TO P/L AS SHOWN

- KAYNAR CO. Bx 2001 TERMINAL ANNEX, LOS ANGELES 54, CALIF
- AVICA CO., NEWPORT, R.I.
- ADEL DIVISION, GENERAL METALS CORP, 10777 VAN OWEN ST, BURBANK CALIF. (OR EQV)
- STILLMAN RUBBER CO.: 5811 MARILYN AVE, CULVER CITY, CALIF (OR EQV)

WORK PRESS. PSI	NUMBER	REQD	NUT	SLEEVE	REQD ZONE	SHT	TUBE OD	WALL THICK	MATERIAL	HEAT TREAT	FINISH	TUBING IDENTIFICATION	TYPE ENDS	MIN STOCK LGTH
	TUBE ASSY		END FITTINGS PER TUBE ASSY		ZONE CODE									

5-85 1 T

MODEL 707	6/25-57 DWG. REC. CLK.	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DRAWING WILL BE CHANGED TO INCLUDE THIS ACTION <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: RELOCATION OF CABIN PRESSURE CONTROL SYSTEM	A	ISSUE NO. PRR 10747 CHG. NO.	PLUMBING INSTL INBOARD NACELLE STRUT
DRAFTED S. Betty	6/1/7	6/26-57 RELEASE 6-27-57 CB		ADCN	DRAWING NO.
CHECKED <i>Randolph</i>	6/1/7	R/P GROUP		7	50-5597
APPROVED <i>W. J. Connelley</i>	6/12	AIR COND REQUESTED		SEC. NO. 77	
APPROVED <i>W. J. Connelley</i>		PROD. INFO.		1-1998 301- CHG. EFF. 1999	

PARTS LIST ZONE	REPLACES	-4	-3	-2	-1	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
	NEW	✓	✓			1	MS21913D10	PLUG						
	NEW	✓	✓			1	150701-10	Ø" RING (BAC P11K -10)			STILLMAN RUBBER CULVER CITY, CALIF			CO (OR EQUIV.)

CHANGE P/L AS SHOWN ABOVE.
SEE ADCN 6 FOR REST OF THIS CHANGE

ADD TO TUBE ASSY AS SHOWN

	✓	✓	50		-57	2	MS21921D10	MS-21922-10	2		.625.035	4		BAC-T1HAA -C2	I				
	✓	✓	50		-56	2	MS21921D10	MS-21922-10	2		.625.035	4		BAC-T1HAA -C2	I				
4-3-2	WORK PRESS. PSI				NUMBER	REQD	NUT	SLEEVE	REQD	ZONE	SHT	TUBE OD	WALL THICK	MATERIAL	HEAT TREAT	FINISH	TUBING IDENT. IFICATION	TYPE ENDS	MIN STOCK LGTH
BAC 924 E-13					TUBE ASSY			END FITTINGS PER TUBE ASSY				ZONE CODE							

2/20/7

MODEL 707		DWG. REC. CLK. 707-2-57		BOEING AIRPLANE COMPANY		A		5-75, T		DUCT - LOW	
G. HARWOOD		9/18/57		ADVANCE DRAWING CHANGE NOTICE		ISSUE NO. PRR 95000		DWG. TITLE ASSY OF		PRESS. ENG. BLEED	
DRAFTED		7-2-571B		THE DWG WILL BE CHANGED TO INCLUDE THIS ADDN		CHG. NO. 2		ADCN		DRAWING NO. 65-3632	
CHECKED F.M. DONOUGH		7-2-571B		<input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION		SEC. NO. 70				SHT. -	
STRESS J.C. DONOUGH		6-1957		REASON: TO CHANGE HOLE		1-199					
APPROVED		P. DOWNES		TOLERANCE FROM CLASS III		301-1999					
APPROVED		420		TO CLASS II (STRESS REQUEST)		CHG. EFF.					
PARTS LIST ZONE		REPLACES		PROD. INFO.		ZONE CODE		STOCK SIZE (APPROX. NET)		MATERIAL	
				READ PART NUMBER		NOMENCLATURE		HEAT TREAT		FINISH	
								P			

IN VIEW D3, ZONE D2; CHANGE CALLOUT AS SHOWN:

~~.281.307 DIA HOLE~~
~~(4 PLACES)~~
 .250.261 DIA HOLE
 .250
 LOCATE TO MATCH
 65-6353-2
 (4 PLACES)

▷ ANY EXISTING PARTS MAY BE USED AS IS.

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS				PART NUMBER	RELEASE COLUMN IND	DWG. SHEET NO.
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6-19 2T

MODEL 707	6-6	6-7-57 DWG. REC. CLK. 6-16-20-57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG. WILL BE CHANGED TO INCLUDE THIS ACTION <input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION		PANEL INSTL-OVERHEAD PILOTS'		
DRAFTED HAMILTON	6-6	RELEASE 6-20-57	ISSUE NO. AS NOTED CHG. NO.		ADCN	DRAWING NO.	BHT
CHECKED HESTALL	6-7-57	PARTITION 6-30-60 REQUESTED	SEC. NO. 52 1-THRU199		13	50-5554	1
STRESS					13	50-5554	2
APPROVED	6-8-57		REASON: SWITCH OVERLOADED <input checked="" type="checkbox"/> * SWITCH INTERFERENCE <input checked="" type="checkbox"/> *				
APPROVED	6-8-57	PROD. INFO.			CHG. EFF.		

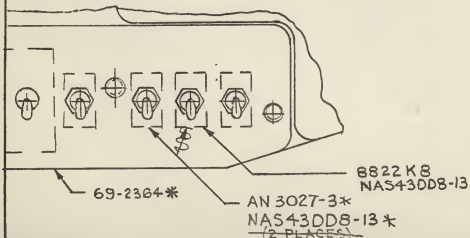
PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
32-1	✓X	2	AN3027-3	SWITCH <input checked="" type="checkbox"/> *	A42					
	AN3027-3	✓	6822K8	SWITCH <input checked="" type="checkbox"/> *	A42		CUTLER-HAMMER INC MILWAUKEE 1, WIS.			
47-1	✓X	7	MS25068-3	SWITCH <input checked="" type="checkbox"/> *	B52					
30-1	✓X	7	AN3021-3	SWITCH <input checked="" type="checkbox"/> *	A42					
	MS25068-3	✓X								

SHT 1 CHANGE P/L PER ABOVE

▶ REPLACE EXISTING PARTS INSTALLED

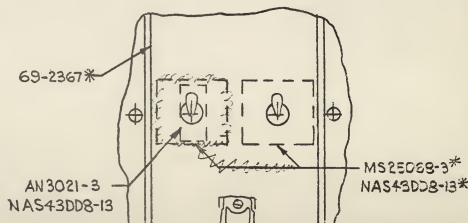
☒ * PRR 10755

SHT 2 ZN A4 CHANGE CALL OUTS AS SHOWN

☒ * PRR 10767

* ADCN REF ONLY

SHT 2 ZN C4 CHANGE CALL OUTS AS SHOWN



AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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MODEL 707		DWG. REC. CLK 7-12-57		BOEING AIRPLANE COMPANY		A		A.C. GENERATOR & CONST. SPEED DRIVE				51
DRAFTED P.H. Corser		RELEASE 7-12-57		ADVANCE DRAWING CHANGE NOTICE		ISSUE NO. APR 10731		DWG. TITLE		SHT.		
CHECKED W. H. H. H.		S/P GROUP 6-2000		REASON: TO PROVIDE CLEARANCE FOR LATCH HOUSING ON L.H. COWL PANEL		CHG. NO. 7		ADCN 50-9750		SHT. 1		
STRESS M. J. J. J.		REQUESTED 7/10/57				SEC. NO. 76		6		50-9750		
APPROVED		PROD. INFO.				1-199						
						301-1999						
						CHG. EFF.						

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
42	✓	✓	2	MJ-02	NUT (BAC-MJ02-3)	10B				
42	✓	✓	5	M10-32	NUT (BAC-M10BY-53)	10B				
57	✓	✓	1	5140-97-9	GASKET BRG (BAC-G107-9)	4A				
57	✓	✓	1	5140-97-9	GASKET O RING (BAC-G107-9)	4A				
58	✓	✓	1	66-2975	BRACKET	10B				
41	✓	✓	3	AN520-10R10	SCREW	10B				
53	✓	✓	2	M10-32	NUT	6A				
18	✓	✓	1	65-3572-3000	EXIT DUCT	8A				
18	✓	✓	1	65-3572-3000	EXIT DUCT-ASSY OF	8A				
59	✓	✓	1	65-5890-3000	EXIT DUCT-ASSY OF	8A				

CHANGE P/L AS ABOVE AND ADD
66-2975 BRKT TO PICTURE

ADCN 7 CANCELS ADCN 6 SHT 1
ADCN 6 CANCELS ADCN 5 SHT 2

IN ZN A6 CHANGE: AN2-3A AN3-3A IN ZN A7 REMOVE
AN364-1032 TO A10-1032 'CALLOUT'
IN ZN A8 CHANGE: AN26-10C AN960-10A BAC-C10B5-14B
50-7564 TO 65-3572-3000 (2 PLACES) (2 PLACES) MJ-02
65-5890-3000 AN520-10R10

ZN A3 ADD: 66-2975 BRKT & CALLOUT

ADD TO GEN NOTES:
LIMITED - SEE P/L FOR RELEASE

65-3572-3000 IS OPTIONAL TO 65-5890-3000
AIRPLANES 1 THRU 6 ONLY

IN ZN A11 CHANGE:
BAC-C10B5-14B BAC-C10B5-14B FRONT VIEW
MJ-02 TO H10-1032
AN520-10R10 AN520-10R10

(ZN BID)

5-85655 (REF)

50-7564
65-3572-3000
65-5890-3000

WL 31.07 (REF)

BL 13.67 (REF)

BAC-C10B5-14B
MJ-02
H10-1032
AN520-10R10
66-2975

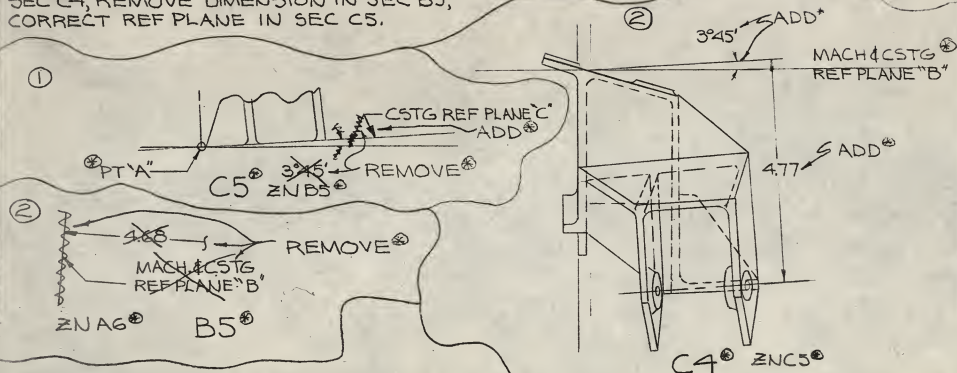
AN520-10R10
H10-1032

CONTROLS

5-23 17

MODEL 707		DWG. REC. CLK 7-19-57		BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ACTION <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: ① REVISE MACH. DWG. TO AGREE WITH ADCN 4. ② REF PLANE CANNOT BE ESTABLISHED IN VIEW B5.		BRACKET-UPPER NO. 3 ENGINE CONTROL		DWG. TITLE		ADCN		DRAWING NO.		SHT			
R. ATKINSON 7-11-57		RELEASE 7-19-57				ISSUE NO. PRR 95000		5		65-2944		7					
DRAFTED		S/P GROUP				CHG. NO. 77											
CHECKED		STRESS		REQUESTED		SEC. NO. SAME AS											
APPROVED		APPROVED		PROD. INFO.		DWG											
APPROVED						CHG. EFF.											
PARTS LIST ZONE		REPLACES		REQD		PART NUMBER		NOMENCLATURE		ZONE CODE		STOCK SIZE (APPROX. NET)		MATERIAL		HEAT TREAT	
																FINISH P	

CHG DWG AS SHOWN: ADD DIMENSION IN SEC C4, REMOVE DIMENSION IN SEC B5, CORRECT REF PLANE IN SEC C5.



R HEATH MFG CO.

P NO PARTS MACHINED

② ADCN REF ONLY

#P 7/16/57

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS				PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.

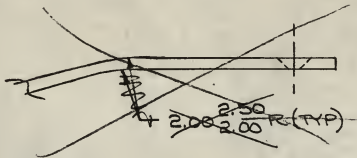
CONTROLS

4-64 17

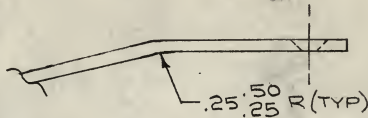
ADCCN

MODEL 707		DWG. REC. CLK 967-19-57		BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DRAWING WILL BE CHANGED TO INCLUDE THIS ACTION <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION		ISSUE NO.		ENGINE START HANDLE UPPER MECHANISM			
DRAFTED SCHNELLE		RELEASE 7-13-57				DWG. TITLE CONTROL STAND		ADCN		DRAWING NO.	
CHECKED HEDSTROM		7-13-57		E/P GROUP		PRR CHG. NO. 95000		6		65-1653	
STRESS		REQUESTED		REASON:		SEC. NO. 51					
APPROVED		PROD. INFO.		TO FACILITATE MANUFACTURING OF PARTS		1-1999					
APPROVED <i>Brilly</i> 7-13-57						CHG. EFF.					
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P	

IN VIEWS OF -3 & -4 CASTING CHG 2.00/2.50 R AS SHOWN



TO




R IRON FIREMAN TWX 3 DATED 7-5-7
P COMPLETED PARTS SATISFACTORY

4-7-57

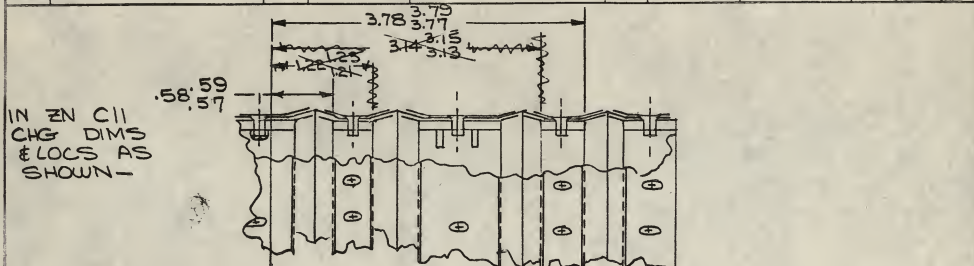
AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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CONTROLS



4.82 17

MODEL 707	DN 7-19-57 DWG. REC. CLK 9/7-19-57	<div style="text-align: center;">  <p>BOEING AIRPLANE COMPANY</p> <p>ADVANCE DRAWING CHANGE NOTICE</p> <p>REASON: <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION</p> <p>REASON: REDUCE TOLERANCE BUILDUP</p> </div>	B		FRAME ASSY UPPER MECHANISM CONTROL STAND	
DRAFTED SCHNELLE 7/3/7	RELEASE 7-19-57		ISSUE NO. PRR 95000	ADCN 14	DRAWING NO. 65-1795	SMT. -
CHECKED HEDSTROM 7-13-57	S/P GROUP		CHG. NO.			
STRESS	REQUESTED		SEC. NO. 51			
APPROVED		PROG. INFO.	SAME AS DWG			
APPROVED Bailey 7-13-57						

PARTS LIST ZONE	REPLACES	REQO	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
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FRONT VIEW*

-  IRON FIREMAN TWX 14 DATED 6-18-7; ELR#179335 MILLER 6-4400
-  PARTS COMPLETED MUST COMPLY * ADCN REF ONLY

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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A
D
C
N

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
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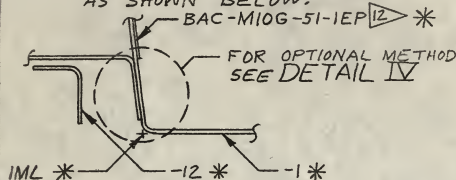
51		65-1388	707						
AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL				PART NUMBER	RELEASE COLUMN IND	DWG. SHEET NO.
AIRPLANE SERIAL NUMBERS									

6-86

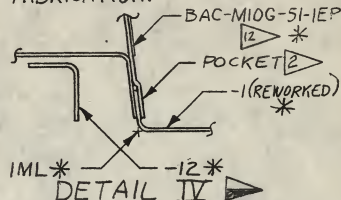
MODEL 707	D77-22-57 OWG REC CLK.	BOEING AIRPLANE COMPANY <h1 style="margin: 0;">ADVANCE DRAWING CHANGE NOTICE</h1> <p style="font-size: small;">THE DWG WILL BE CHANGED TO INCLUDE THIS ADDN <input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION</p>		EQUIPMENT INSTL- EMERGENCY, CONTROL CAB	DWG. TITLE
DRAFTED STEPANION	6-24-57	RELEASE	ADCN	DRAWING NO.	SHT.
CHECKED <i>A. J. J.</i>	6-25-57	B/P GROUP	4	50-9385	2
STRESS		J. NORMAN			
APPROVED <i>J. B. J.</i>	7-12-57	REQUESTED			
APPROVED		OPTIONAL METHOD			
		PROD. INFO.			
REASON: TO ALLOW OPTIONAL METHOD TO FACILITATE MANUFACTURE		ISSUE NO. PRR CHG. NO. 95000 SEC. NO. 52 CHG. EFF. 1-1999			

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
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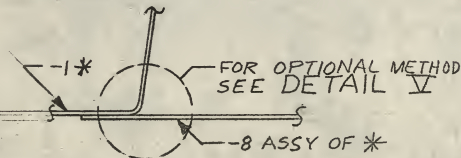
ZONE (A6) IN VIEW A3 ADD CALLOUT AS SHOWN BELOW.



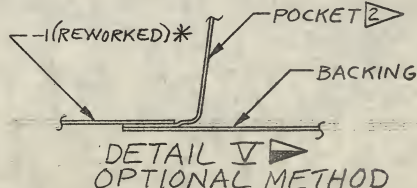
ADD DETAIL VIEW SHOWING OPTIONAL METHOD OF FABRICATION.



ZONE (A5) IN VIEW A3 ADD CALLOUT AS SHOWN BELOW



(SEE ADCN 4 ON SHEET 1 FOR RELATED CHANGE) *



* ADCN REFERENCE ONLY

AIPR. SEC. NO.	QTY. PER AIPR.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE IND	DWG SHEET NO.
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4-83 17

MODEL 707	6-7-57	6-7-57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DATA WILL BE CHANGED TO INCLUDE THIS ACTION <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: DUCT AND LATCH HOUSING INTERFERE		ISSUE NO. PRR 10731 CHG. NO.	EXIT DUCT-ALT. COOLING, ASSY OF DWG. TITLE				
DRAFTED HOPPER	6-7-57	6-7-57			SEC. NO. 76	ADCN 3	DRAWING NO. 65-3572			
CHECKED <i>[Signature]</i>	6-8-57	6-8-57			1 THRU 199 &	5	65-3572			
STRESS		6-7000			301 THRU 1999					
APPROVED <i>Donaldson</i>	6/8/57	REQUESTED			CHG. EFF.					
APPROVED <i>[Signature]</i>	6/8/57	PROD. INFO.								
PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
			65-3572-3000	EXIT DUCT-ASSY OF						
			-1	DUCT						
			-2	DUCT						

REPLACES ADCN 3

ADD TO P/L AS SHOWN ABOVE
(NOTE: -3000 SAME AS 65-3572.)

REASON: TO RELEASE OPTIONAL PART
DRAWN: PH. CORSER 7-12-57
CH'D: *Heineman* 7-12-57
APP'D: *Donaldson* 7-13-57
CHG EFF: 1 THRU 6
PRR 10731

CHANGE TAB BLOCK AS SHOWN BELOW

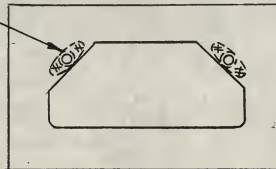
76	50-9750	707	OPTIONAL + THRU 199 & 301 THRU 1999		65-3572-3000	⑤
AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		
				PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.

8-622T NOT PROCESS

MODEL 707-120	87-15-57 DWG. REC. CLK. 9C 7-15-57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ADDN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION		A ISSUE NO. ITEM 7813 CHG. NO.		BOX-SLEEVE LOCK ASSY OF DWG. TITLE ADCN DRA" .IG NO. R1 69-3548		SHT. —			
DRAFTED EIS	6-21-57	RELEASE 7-15-57		SEC. NO. 78							
CHECKED C. White	6/21/57	W/P GROUP		ALL							
STRESS		ROHR REQUESTED		CHG. EFF.							
APPROVED R. Ahern	6/34	NONE - NO ASSY. MK'D PROD. INFO.		REASON: NUT PLATE INCORRECTLY CALLED OUT. (ENGRG ERROR)							
APPROVED G.	6/21										
PARTS LIST ZONE	REPLACES	69-3548	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
I-4		✓	2	BAC NIOLC -ABSCP	NUT PLATE						
NEW	BAC NIOLC -ABSCP	✓	2	TOLHA 401P -02	NUT PLATE, FLOATING (BAC-NIOLC-ABSP)						
						ELASTIC STOPNUT CORP OF AMERICA 2330 VALLEY HILL RD. WINTON, N.H. OR EQUIVALENT					

REVISE P/L AS SHOWN ABOVE
REVISE DWG AS SHOWN BELOW

~~BAC-NIOLC-ABSCP~~
TOLHA 401P-02
(2 PLACES)

**APPROVED**

Chkd. By: R. Ahern Date 7-10-57
Apprd. By: SW Date 7-11

Boeing Airp. Co.-Transport Div.

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS			PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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MODEL	707	7-741-57
DRAFTED	MIGGANTZ	6-22-57
CHECKED	Rothembuhler	7-15-57
STRESS		
APPROVED		
APPROVED		
PARTS LIST ZONE		

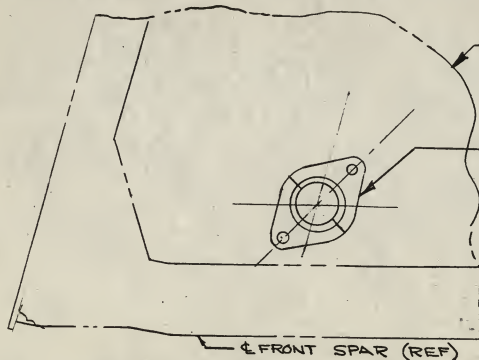
BOEING AIRPLANE COMPANY
ADVANCE DRAWING CHANGE NOTICE
 THE DWG WILL BE CHANGED TO INCLUDE THIS AD CN
☐ DEVIATION ☐ VARIATION
 REASON: ADDITIONAL WIRE
 SEALS REQUIRED

SEAL INSTALLATION
 ELECT. FRONT SPAR
 DWG. TITLE ST. 107, 208

ISSUE NO.	ADCN	DRAWING NO.	CHT.
1T. 95000			
CHG. NO.			
SEC. NO. 22		90-7858	
1 THRU 1999	Z	90-7858	
CHG. EFF.			

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
	NEW	✓	2	BAC-S45A-3			SEAL FITTING - HALF			
	✓	✓	28 30	AN515-6R8			SCREW			
	✓	✓	28 30	AN960D6L			WASHER			
	✓	✓	28 30	H10-632			NUT, HEX - LIGHT WEIGHT (EAC-N10BY-306)			

CHANGE P/L AS SHOWN



▷ KAYNAR CO., 820 E. 16TH ST.
 LOS ANGELES 21, CALIF.

IN PICTURE:
 ADD TO MAIN VIEW AS
 SHOWN.

REPLACES ADCN 1
 REASON: WRONG DASH NOS.
 ON RELEASE COLUMN.
 DRAFTED: EMIGGANTZ 7-2-57
 CHKD. Rothembuhler 7/2/57
 APV. *[Signature]* 7-2-57
 (ONLY ADV. COPIES RELEASED)

FWD
 UP

AS SHOWN INSTL - 1
 OPPOSITE INSTL. - 2

▷ REWORK EXISTING INSTALLATIONS
 SEE ADCN 6 ON 50-8759 SHT 2

WORK PRESS. PSI	NUMBER	REQD	NUT	SLEEVE	REQD ZONE	SHT	TUBE OD	WALL THICK	MATERIAL	HEAT TREAT	FINISH	TUBING IDENTIFICATION	TYPE ENDS	MIN STOCK LGTH
	TUBE ASSY		END PPS	PER TUBE ASSY	ZONE CODE									

CONTROLS

2-68 1T

MODEL 707	217-16-59 DWG. REC. CLK 2/11/57	BOEING AIRPLANE COMPANY		FRAME ASSY LWR MECHANISM DWG. TITLE CONTROL STAND	
DRAFTED SCHNELLE 7/6/57	RELEASE 7/16-57	ADVANCE DRAWING CHANGE NOTICE		ISSUE NO. PRR 95000	ADCN 2
CHECKED <i>Shaeffer</i> 7/9/57	R/P GROUP	THE DWG. WILL BE CHANGED TO INCLUDE THIS ADDN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION		CHG. NO. 1-199	DRAWING NO. 65-2395
STRESS	R REQUESTED	REASON: PART WAS CANCELLED		SEC. NO. 51	SHT. 4
APPROVE <i>Mitten</i> 7/9/57	P			CHG. EFF.	
APPROVED <i>Bailey</i> 7-9-57	PROD. INFO.				
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE STOCK SIZE (APPROX. NET)
					MATERIAL HEAT TREAT FINISH P

IN ZONE A2 REMOVE ~~65-5919~~

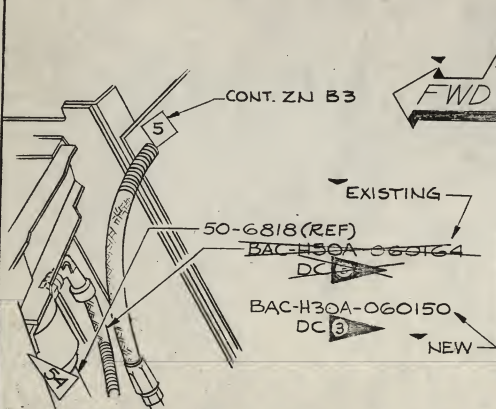
- R ELR # 179336 MILLER G-4400 (7-2-7) IRON FIREMAN
- P DRAWING CLARIFICATION ONLY - PARTS NOT AFFECTED

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG. SHEET NO.
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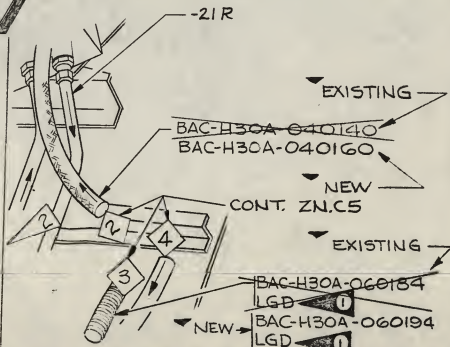
ADDN

IN ZN C7 CHANGE PART
CALLOUT AS SHOWN

IN ZN BG CHANGE PARTS
CALLOUT AS SHOWN



▷ ASSY PLANNING AFFECTED



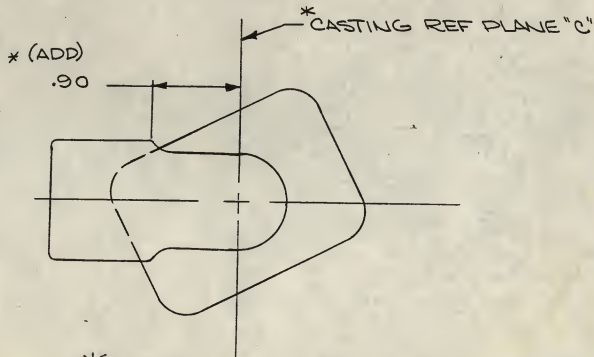
WORK PRESS. PSI	NUMBER	REQD	NUT	SLEEVE	REQD	ZONE	SHT	TUBE OD	WALL THICK	MATERIAL	HEAT TREAT	FINISH	TUBING IDENT- IFICATION	TYPE ENDS	MIN STOCK LGTH
	TUBE ASSY	END FITTINGS PER TUBE ASSY			ZONE CODE										

BAC 924 E-R3 *Boat*
64547 7-6-7

6-62 1T (NOT PROCESS)

MODEL 707	27-17-52 DWG. REC. CLK	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ACTION <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: SHOULDER NOT DEFINED BY DWG (ENGDC ERROR)		FITTING-ENGINE, BEARING VENT						
DRAFTED C. ROSS 6/5/57	RELEASE 9/17-57			DWG. TITLE						
CHECKED DARTON 6/5/57	E/P GROUP			ACCN	DRAWING NO	SHT.				
STRESS HECHT 6/7/57	ENGDC REQUESTED			ISSUE NO. PRR 10267	CHG. NO. RI-1 65-5383	-				
APPROVED	PROD. INFO.	SEC. NO. 76	1 THRU 199							
APPROVED		301 THRU 1999		CHG. EFF.						
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P

ADD DIM TO DWG AS SHOWN BELOW



* SAND CASTING
PART NO 65-5383-1 1 2

* ACCN REF

▷ RWK EXISTING DETAIL PARTS, ASSCS ARE SATISFACTORY

KC-135 NOT AFFECTED

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS			PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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581-245


CHECKED	RELEASED	<input checked="" type="checkbox"/> BAC
CHECKED	RELEASED	<input type="checkbox"/> CANCELLED BY BAC AREA
APPROVED BY	DATE	707
6/5/57	6/5/57	707
6/5/57	6/5/57	707

4-68 17

A
D
C
N

MODEL 707		DWG. REC. CLK 6-24-57 277012-457		BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DASH WILL BE CHANGED TO INCLUDE THIS LADDER <input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION REASON: TO CORRECT STOCK-SIZE CALL-OUT		A ISSUE NO. ITEM 95000 CHG. NO. 72 SEC. NO. 1-199 & 301-1999 CHG. EFF.		BRACKET- FIRE EXT. VALVE, FWD, ASSY. OF									
BOB WILLIAMS 6-17-7		RELEASE 6-24-57CB						DWG. TITLE		ADCN		DRAWING NO.		SHT.			
CHECKED <i>Seeling</i> 6-17-57		B/P GROUP CAMPBELL 6-4400 REQUESTED						3		66-2707		-					
STRESS		PROD. INFO.															
APPROVED <i>Kudry</i> 6-17-7																	
APPROVED																	
PARTS LIST ZONE		REPLACES		ZONE		STOCK SIZE (APPROX. NET)		MATERIAL		HEAT TREAT		FINISH		P			
9		4-66-2707		RECD		PART NUMBER		NOMENCLATURE		BAC1490-2451X6.10 BAC1490-2541X6.10		CLAD 2024S 90-4-362 74 TEMP		SRF-2.115		S	

CHANGE DASH NUMBER OF BAC1490 IN STOCK SIZE COLUMN AS SHOWN ABOVE

 DETAIL PLANNING AFFECTED

APR 6/20

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS				PART NUMBER	RELEASE COLUMN IND	DWG. SHEET NO.
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4-70 1T

MODEL 707	DWG. REC. CLK. 216-74-57	BOEING AIRPLANE COMPANY SEATTLE 14, WASHINGTON	NEW	TRAILING EDGE FAIRING INBD NACELLE STRUT		
DRAFTED WILLARD DALE 6/8/57	RELEASE 4-24-57	ADVANCE DRAWING CHANGE NOTICE THE SHOWN WILL BE CHANGED TO INCLUDE THIS DRAWING <input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION	ISSUE NO. PRR 10765	ADCN 6	DRAWING NO. 5-85626	SHT. 1A
CHECKED <i>Ronaldson</i> 6/18	B/P GROUP D. DONALDSON P.P. 6-7000		CHG. NO. 72			
STRESS <i>Ronaldson</i> 6/18	REQUESTED		SEC. NO.			
STANDARDS <i>Ronaldson</i> 6/19	APPROVED	REASON: TO PROVIDE SUPPORT FOR AFT FAIRING OF THRUST REVERSER	1-199	CHG. EFF. 301-1999		

PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	P	HEAT TREAT	FINISH
	NEW	✓	1	60-2040 -2000	A5 2A					
	-3015	✓	1	3015 -3133	C9 3A					
	-3016	✓	1	3016 -3134	C9 3A					
	-3039	✓	1	3039 -3135	A5 3A					
	-3040	✓	1	3040 -3136	A5 3A					
	NEW	✓	1	-2040	A7 3A	.040 x 2.00 x 2.50		R	T4	SRF 2-115 SRF 12-207
	NEW	✓	1	3-74649	A7 2A					
	NEW	✓	3	H10-428W NUT (BAG-N10BY-54W)	A7 2A		THE KAYNAR CO. LOS ANGELES 54 CALIF. (OR EQUIV.)			
	NEW	✓	3	AN-960-D916	A7 2A					
	NEW	✓	2	AN-960-416	A5 2A					
	NEW	✓	2	AN4-14A	A2 3A					
	NEW	✓	1	9-67562	A6 2A					
	NEW	✓	1	ACT 509-N-T8-2	A2 2A		HUCK MANUFACTURING CO DETROIT 7, MICH (OR EQUIV.)			
	NEW	✓	1	LC-CB	A2 2A		HUCK MANUFACTURING CO DETROIT 7, MICH. (OR EQUIV.)			



CHANGE PARTS LIST AS SHOWN ABOVE



▷ REWORK EXISTING PARTS

HP 6/21


WORK PRESS. PSI	NUMBER	RECD	NUT	SLEEVE	RECD	ZONE	SHT	TUBE OD	WALL THICK	MATERIAL	HEAT TREAT	FINISH	TUBING IDENTIFICATION	TYPE ENDS	MIN STOCK LGTH
	TUBE ASSY		END FITTINGS PER TUBE ASSY			ZONE CODE									

4-75 2T

MODEL 707		716-24-57 DWG REC CLK 406-25-57	 <p>BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ACTION <input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION REASON: TO ALLOW REMOVAL OF THE TOP ENG TEMP PROBE WITHOUT REMOVAL OF ENGINE</p>		A	LOWER SPARE INSTALLATION DWG. TITLE OUTED STRUT			
DRAFTED G. WOODS	6-13-57	RELEASE 6-25-57 B/P GROUP				ISSUE NO. 10704	ADCN 13	DRAWING NO. S-9122	SHT. 1A
CHECKED <i>Boyle</i>	6/8	P. DONALDSON 6-7000 REQUESTED				SEC. NO. 74			
STRESS <i>Donaldson</i>	6-18-57					1-199			
APPROVED <i>Donaldson</i>	6/18/57					301-1999			
APPROVED <i>Donaldson</i>	6/19	PROD. INFO.							

ARTS LIST ONE	REPLACES	S-8122 -3000	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
NEW		✓	1	-3023	REINFORCEMENT PLATE	A4 2A	 X7.0 X7.0		-	F-B.05	R
NEW		✓	1	69-4032	CAP	A4 2A					

ADD TO P/L AS SHOWN ABOVE:

 .036 OPT .042 REWORK EXISTING ASSY'S

RP. CC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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AP 6/21

WING

4-7 17

MODEL 707	DWG. REC. CLK 216-25-57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ADDN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: PRESENT DWG CONFIGURATION CANNOT BE REMOVED FROM DIE		ISSUE NO. ARR 95000	SUPPORT FORGING FRONT SPAR OUTBD DWG. TITLE NACELLE					
DRAFTED SCHNELLE 6/4/7	RELEASE 6-25-57			CHG. NO. 4	DRAWING NO. 50-8217	SMT				
CHECKED Schaeffer 6/18/67	SIP GROUP			SEC. NO. 12						
STRESS	REQUESTED			1-1999						
APPROVED Amiller 9/19/7	PROD. INFO.			CHG. EFF.						
APPROVED Bailey 6-18-57										
PARTS LIST ZONE	REPLACES	READ	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P

△ & ALLOW USE OF PRESENT DIE

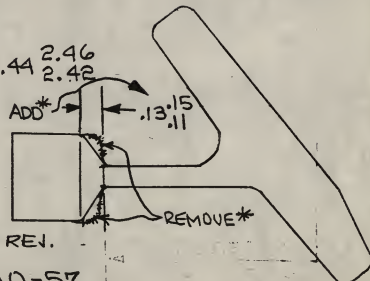
IN ZONE BG & CG VIEW 2C5 CHG-

~~2.22~~ ^{2.35}
2.20 ~~2.18~~ TO READ 2.33 2.31

ALSO CHG-

~~2.35~~ ^{2.46}
~~2.33~~ ^{2.42} TO READ 2.44

IN VIEW B5 CHG
AS SHOWN, CHG
VIEW IN ZN C5 TO
AGREE



△ PARTS RECEIVED ARE IN ACCORD PER. REV.
TAG 118712

△ REJ. TAG, 118712 IRA JOHNS 6-10-57

* ADCN REF ONLY

6/22


AIRP. SEC. NO.	QTY. PER. AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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FLIGHT MODEL TEST 707
4-26-57
DRAFTED F. H. STARR
L. J. CARPENTER
CHECKED

STRESS

APPROVED *BB*
Donaldson 6/28
APPROVED

APPROVED *REHage* 6-287

DWG REC CLK
2711/5/57
RELEASE
7-5-723
B/P GROUP
2-7933-4
REQUESTED
PROD INFO 
SHOP INFO
ELR OR DCR

BOEING AIRPLANE COMPANY

DRAWING DEPARTURE AUTHORIZATION



THE DWG WILL NOT BE CHANGED

REASON:
TO REPLACE DUCT 50-6397
WITH DUCT WHICH HAS
INSTRUMENTATION PROVISIONS,
ON ENGINE NO.4

B


NOSE COWL-ENGINE
NACELLE, ASSY OF


DWG TITLE


ISSUE No. 
CHG. No. 
SEC. No. 71
CHG EFF

DDA No. 5
DRAWING No. 5-35655 SHT 1A

PARTS LIST ZONE	REPLACES	5-85655-3000	REQD.	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
59-5	DELETED	✓	1	50-6397	DUCT ASSY						
	50-6397	✓	1	50-6397-4	DUCT ASSY						

 A/P0001 ENGINE NO4 ONLY

 PLANNING AFFECTED

 PRR 19980 INSTALL 50-6397-4 DUCT ASSY

9-20 5T

MODEL	707	277-2-57 DWG. REC. CLK 2271357
DRAFTED	FRONSDAHL 7/1/57	RELEASE 7-3-76
CHECKED	SHUMAN	B/P GROUP G. DREW 6-7-76
STRESS	W. B. 6/18	REQUESTED
APPROVED	W. B. 6/19/7	PROD. INFO
APPROVED	W. B. 6/25-7	

BOEING AIRPLANE COMPANY
ADVANCE DRAWING CHANGE NOTICE
THE DWG WILL BE CHANGED TO INCLUDE THE ADDN
☐ DEVIATION ☐ VARIATION
REASON: TO ADD ANGLE
& CHANGE PIN ON
DRWG.

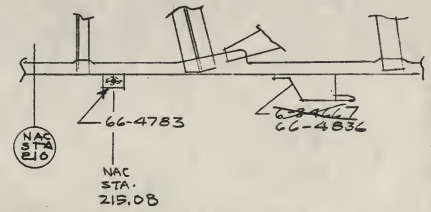
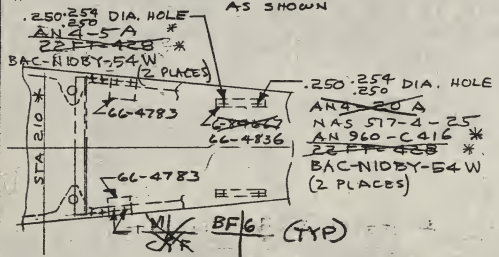
A	LOWER SPAR INST'L INBD. STRUT		
	DWG. TITLE	ADCN	DRAWING NO.
ISSUE NO.	7853	13	8-8100
CHG. NO.			
SEC. NO.	74	7	8-8100
1-199			
301-1999			
CHG. EFF.			

PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
	NEW	✓	2	66-4783	ANGLE					
		✓	2	NAS517-4-25	SCREW 100° FH.					
		✓	2	66-4836	PIN FITTING					
41		✓	2	684667	PIN FITTING					
42		✓	2	AN4-20A	BOCT					
		✓	4	AN363-428	NUT					
		✓	4	BAC-NIDBY 54W	NUT					

CHANGE P/L AS ABOVE:-

IN ZN C53A REVISE AS SHOWN

IN ZN A53A REVISE AS SHOWN



* ADCN REF. ONLY.

EXISTING PARTS MAY BE USED WITHOUT REWORK

HP 6/26/7

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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4-7017

MODEL 707	DWG. REC. CLK. 6-10-54	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE <small>THE DWG WILL BE CHANGED TO INCLUDE THIS ADCN</small> <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION	New ISSUE NO.	INBD STRUT NAC- DWG. TITLE ASSEMBLY OF		
DRAFTED TIFUJIOKA 9/28/54	RELEASE 6-10-54		ITEM 7211	ADCN	DRAWING NO.	SMT.
CHECKED <i>Ringlor</i> 10/4	B.P. GROUP		CHG. NO.	1	5-85617	1A
STRESS	P.B. DONALDSON		SEC. NO. 72	8	5-85617	1A
APPROVED <i>Donaldson</i>	REQUESTED 6-7-54	1-199				
APPROVED <i>Rehage</i> 6-8-54	PROD. INFO.	301-1599				
PARTS LIST ZONE	REPLACES	CHG. EFF.				

REASON: P/L INCORRECT
ADD NEW PART

REO	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
✓	5-88444-3003							
✓	5-88444-2003	STIFFENER LH SIDE						
✓	5-88444-3004							
✓	5-88444-2004	STIFFENER LH SIDE						
✓	5-88447-3006	STIFFENER RH SIDE						
✓	5-88447-3006	STIFFENER RH SIDE						
✓	5-88447-3001	ASSY OF						
✓	5-88447-2002	STIFFENER RH SIDE						
✓	5-88447-3005	ANGLE RH SIDE						

CHANGE P/L AS SHOWN ABOVE

REPLACES ADCN 1

REASON: TO MAKE DWG AGREE WITH
CHG ON 5-88447 SHT A & 2A

REQD: SAFFELL 6-3060 REF (COORD SHT CX10-93)

DRAFTED: GLENN R. DOWNING 6-13-57

CHECKED: Rothengubler 6/21/57

APPROVED: *Kear* 6/24/57

ADCN NOTE: SEE ADCN 9 ON 5-85167 SHT A FOR
PICTURE CHANGE.
SEE ADCN 2 ON 5-88447 SHT A & DCN B
ON 5-88447 SHT 2A FOR COMPLETE CHANGE

▷ ASSY PLANNING AFFECTED

AIRP. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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10-80 IT

NOT PROCESS

(A)

MODEL 707	EN 7-8-57	DWG. REC. CLK.
DRAFTED HOCKETT	5/9/57	707-57
CHECKED DARTON	5/10/57	7-576
STRESS En. Pichard	5/13/57	S/P GROUP ROHR 4-1307 REQUESTED
APPROVED [Signature]		5
APPROVED [Signature]	5/13/57	PROD. INFO.

BOEING AIRPLANE COMPANY

ADVANCE DRAWING CHANGE NOTICE

RE: THIS WILL BE CHANGED TO INCLUDE A REASON

☐ DEVIATION ☐ VARIATION

REASON: EXTRUSION CANNOT
BE PURCHASED (VENDOR
DEFICIENCY) **

FIREWALL-INSTALLATION NACELLE ENGINE		
DWG. TITLE	ADCN	DRAWING NO.
ISSUE NO. PER 10087	R-1	65-3631
CHG. NO.		
SEC. NO. 71		
1 THRU 199		
301 THRU 1999		
CHG. EFF.		

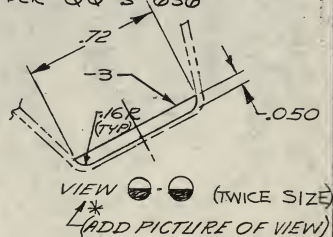
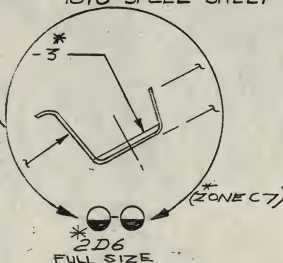
PARTS LIST ZONE	REPLACES	QTY	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
1-4		✓	1	3	STRAP		BAC-1527-6	1020 OR 1025 MIL-S-7952		F-120	R
1-4		✓	1	-3	STRAP		142.0 LONG	1992 COLD ROLLED		F-1.205	R

REVISE **R/L** AS SHOWN ABOVE - ON FACE DWG ADD VIEW & NOTES
AS SHOWN BELOW

▷ BAC-1527-6 142.0 LONG OR SHT STOCK .050 x .75 x 142.0

▷ EXTRUSION, 1020 OR 1025 MIL-S-7952 ANNEALED COLD ROLLED OR,
SHEET STOCK, 1010 STEEL SHEET PER QQ-S-636

<input checked="" type="checkbox"/> BAC RELEASED	<input type="checkbox"/> KC-135
<input type="checkbox"/> CANCELED BY BAC ADD 1	<input checked="" type="checkbox"/> 707
707 STRAPS	
CHECKED [Signature]	5/24/57
CHECKED [Signature]	5/24/57
APPROV D [Signature]	6/28/57



* ADCN REF
KC135 NOT AFFECTED

5 EXISTING PARTS & ASSY'S ARE SATISFACTORY

** FINISH CHGD FOR
BETTER HEAT RESISTANCE

AIRPLANE SERIAL NUMBERS

AIRP. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL
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PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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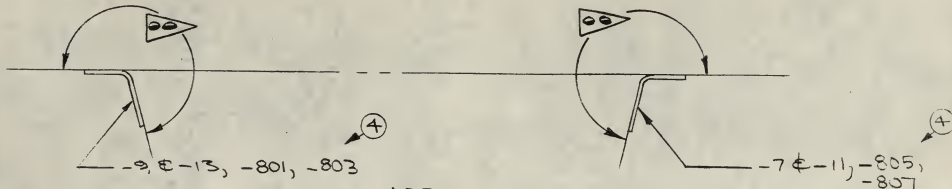
581-480

20-37

7-2-57 10-70 1T

MODEL 707	DWG REC CLK <i>7-2-57</i>	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE <small>THIS DRAWING WILL BE CHANGED TO INCLUDE A CHANGE</small> <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: FAYING SURFACE REQUIRE PROTECTION	ATTACH ANGLE INST TE FAYING DWG. TITLE INBD NACELLE ADCN DRAWING NO SHT 1 65-2397 1 4 65-2397 1	ISSUE NO. PRE. 85000 CHG NO. SEC. NO. 12 1 THRU 1889 CHG EFF.					
DRAFTED STARC 7-27	DT. FILE <i>7-28-57</i>	REQUESTED PROD. INFO.							
CHECKED <i>R. Short</i> 4/27	6-7312								
STRESS									
APPROVED <i>Barthly</i> 4-5-57									
PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH

IN ZN DI TYP SECTION ADD FINISH CALLOUTS AS SHOWN:



TO GEN NOTES ADD:

SRF 12.206 IN AREA AS NOTED

*ADCN REF: SEE ADCN 3 FOR COMPLETE CHANGE

AIRP 001 IN ACCORD
OP ITEM

REPLACES ADCN 1

DRAWN: RUTH WEAVER (7-2-7)

CHK'D: *R. Short* (7-2-7)

APP'D: *Barthly* 7-5-57

REASON: TO CORRECT OBSOLETE PART CALLOUT *ADCN 1*

AIRP. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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11-65 1T NOT PROCESS

MODEL 707		DWG. REC. CLK 7-9-57		BOEING AIRPLANE COMPANY SEATTLE 11, WASHINGTON ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ADCN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION (ENGRG. ERROR) REASON: SCARF NOT REQ'D FOR METHOD OF ATTACHMENT ON ASSY DWG. 69-4131.		LATCH HALF-ENGINE NACELLE		DWG. TITLE	
MR. MATTESSON DRAFTED		RELEASE 7-9-57				ISSUE NO. PRR 10087		ADCN R-1	
CHECKED H. DARTON		S/P UNIT ROHR		CHG. NO.		SEC. NO.		SHY.	
STRESS <i>Erkman</i>		4-1384 REQUESTED		CHG. NO.		SEC. NO.		SHY.	
APPROVED <i>[Signature]</i>		PROD. INFO.		CHG. EFF.		SEC. NO.		SHY.	
APPROVED <i>[Signature]</i>		PROD. INFO.		CHG. EFF.		SEC. NO.		SHY.	
PARTS LIST		REPLACES		RECD		PART NUMBER		NOMENCLATURE	
ZONE		RECD		PART NUMBER		NOMENCLATURE		ZONE CODE	
STOCK SIZE (APPROX. NET)		MATERIAL		HEAT TREAT		FINISH		P	

DELETE SECTION CUT A-A & VIEW A-A AND CHG CORRESPONDING VIEW TO AGREE AS SHOWN:

☐ BAC RELEASED ☐ KC-135
☒ CANCELED BY BAC ADCN ☐ 707
 SEE ADCN # 1 THIS SHEET
 CHECKED *Blakelun*
 CHECKED *[Signature]*
 APPROV D *[Signature]* 6/27/7

* ADCN REF.

EXISTING PARTS & ASSYS
 MAY BE USED PROVIDED WELDING OPERATION IS SATISFACTORY
 SCRAP EXISTING PARTS.
 REWORK EXISTING ASSYS.
 KC-135 NOT AFFECTED.

REPLACES ADCN R-1 REASON: EXISTING PARTS & ASSYS MAY BE USED.

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG. SHEET NO.
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5-60 17 NOT PROCESS

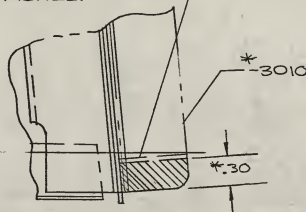
MODEL 707		DWG. REC. CLK. 27-8-57		BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE <small>THE DWG. WILL BE CHANGED TO INCLUDE:</small> <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION TO MAKE THE -3010 AGREE REASON: WITH THE NEW SKIN SPLIT ON 50-8281. (MFG. FACILITY)		C ISSUE NO. ITEM 7230 CHG. NO. 72 SEC. NO. 1 THRU 199 501 THRU 1999 CHG. EFF.		BULKHEAD INSTL.-FWD ENGINE MOUNT, IN'D		
R. MATTESON / <i>dy</i> 5/1/57		RELEASE 7-8-57						DWG. TITLE NAC. STA. 136		
CHECKED H. DARTON 5/1/57		R/P GROUP ROHR 4-1302 REQUESTED						ADCN DRAWING NO. SHT.		
STRESS <i>W. Carlson</i> 5/1/57		ROHR 4-1302 REQUESTED						R-3 4-5177 2A		
APPROVED <i>[Signature]</i> 5/8/57		P PROD. INFO.								
APPROVED <i>[Signature]</i> 6/6/57										
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P

ADD JOGGLE TO -3010 AS SHOWN BELOW:

*CHG. CORRESPONDING VIEWS TO AGREE.

*(ADD)

JOGGLE DN. .025 IN. .15



*ZONE B2

<input checked="" type="checkbox"/> BAC RELEASED	<input type="checkbox"/> KC-135
<input type="checkbox"/> CANCEL BY BAC ADD.1	<input checked="" type="checkbox"/> 707
DWG. CHECKED <i>[Signature]</i> 4/25/57	
P. <i>[Signature]</i> 4/25/57	

*ADCN REF

P REWORK EXISTING PARTS & ASSY'S NOT INSTALLED.

KC-135 NOT AFFECTED.

*

AP 7/13/57

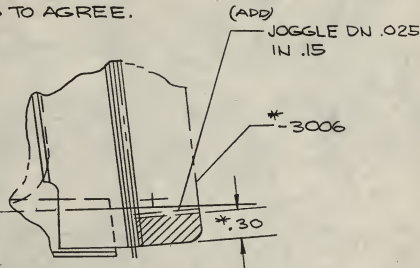
THIS CHG. INCOMPLETE WITHOUT:					
ADCN	SHT	DWG	ADCN	SHT	DWG
R1-4	5	50-8281	R1-4	2A	4-5181
R1-3	2	50-8281	R1-12	100	5-85653
R2-R1-4R-5	3	50-8281			

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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3-60-17 NOT PROCESS

MODEL 707	27 7-8-57 DWG. REC. CLK. 27 7-8-57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE RE: THIS WILL BE CHANGED TO INCLUDE THE ADCN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION TO MAKE THE -3006 AGREE REASON: WITH THE NEW SKIN SPLIT ON 50-8281. (MFG. FACILITY)		C ISSUE NO. ITEM 7430 CHG. NO. 74 1 THRU 199 301 THRU 1999 CHG. EFT.		BULKHEAD INST'L-FWD ENGINE MOUNT, OUTBD DWG. TITLE NAC. STA. 136	
DRAFTED R. MATTESON 5/1/57	RELEASE 7-8-57 11/13			ADCN		DRAWING NO.	
CHECKED H. DORTON 5/1/57	S/P GROUP ROHR 4-1302 REQUESTED			R-4		4-5181	
STRESS W. E. Ecker 5/1/57				2A			
APPROVED [Signature] 7/6/57	PROD. INFO.						
APPROVED [Signature] 6/6/57							
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL
							HEAT TREAT
							FINISH
							P

ADD JOGGLE TO -3006 AS SHOWN BELOW:

*CHG CORRESPONDING
VIEWS TO AGREE.

<input checked="" type="checkbox"/> BAC RELEASED	<input type="checkbox"/> KC-135
<input type="checkbox"/> CANCELLED BY BAC ADCN:	<input checked="" type="checkbox"/> 707
CHECKED [Signature] 6/2/57	
CHECKED [Signature] 6/2/57	
APPROV. D [Signature] 6/2/57	

*ADCN REF.

P REWORK EXISTING PARTS & ASSY'S
NOT INSTALLED.

KC-135 NOT AFFECTED

*ZONE B2

* THIS CHG. INCOMPLETE WITHOUT:					
ADCN	SHT	DWG	ADCN	SHT	DWG
R1R-3R16	1	50-8281	R1-3	2A	4-5177
R1-3	2	50-8281	R1-12	100	3-856ES
R2R-4R-5	3	50-8281			

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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581-509

5-76 27

MODEL 707	DWG. REC. CLK 7-3-57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE <small>THE DWG. WILL BE CHANGED TO INCLUDE THIS ACTION</small> <input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION			ISSUE NO. PRR 10764	LOWER SPAR INSTALLATION IMPROVEMENT DWG. TITLE						
DRAFTED G. WOODS	RELEASE 7-8-57	REASON: TO ALLOW REMOVAL OF THE TOP ENG TEMP PROBE WITHOUT REMOVAL OF ENGINE			DWG. NO.	ADCN	DRAWING NO.	EXT.				
CHECKED <i>[Signature]</i>	S/P GROUP 6/18				15	8-8100	1A					
STRESS <i>[Signature]</i>	6-18-57	6-7000 REQUESTED	SEC. NO. 72									
APPROVED <i>[Signature]</i>	6/16		1-199									
APPROVED <i>[Signature]</i>	6/15		301-1999									
PARTS LIST ZONE		REPLACES	8-8100 -3000	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
NEW			✓	1	-23	REINFORCEMENT PLATE	A7 3A	X6.6 X7.0		-	F-8.05	E
NEW			✓	1	69-403Z	CAP	A7 3A					

ADD TO P/L AS SHOWN ABOVE:



.036 OPT .042



REWORK EXISTING ASSY'S

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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MODEL 707	277-16-57 DWG. REC. CLK	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ADDN <input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION REASON: TO ADD FIRE DETECTOR INST.		ISSUE NO. PRR 10453 CHG. NO.	STRUCT. INSTALLATION INBOARD INSTALL DWG. TITLE ADCN 5 DRAWING NO. 50-8429 SHT. 1		
DRAFTED G. OSTERLOH 6/24/79	RELEASE 7-17-57 (in cl) B/P GROUP 6-7000 DONALDSON REQUESTED			SEC. NO. 72			
CHECKED T. BURDO 7/8/79				1-99 & 301- CHG. EFF. 1999			
APPROVED <i>Donaldson</i> 7/11/79							
APPROVED <i>7/11</i>	PROD. INFO.						

PARTS LIST ZONE	REPLACES									REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
	10-2-8-7-6-5-4-3-2-1										65-4105	FIRE DETECTOR INSTL.						

CHANGE P/L AS SHOWN ABOVE

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS											PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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8-80 2T

MODEL 707		DT 7-16-57 DWG. REC. CLK	BOEING AIRPLANE COMPANY		<div style="border: 1px solid black; padding: 5px; text-align: center;"> <h1 style="margin: 0;">ADVANCE DRAWING CHANGE NOTICE</h1> <p style="font-size: small; margin: 5px 0;">THE DWG WILL BE CHANGED TO INCLUDE THIS ACTION</p> <p style="margin: 5px 0;"><input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION</p> <p style="margin: 5px 0;">REASON: TO ADD FIRE DETECTOR INST.</p> </div>	STRUT INSTALLATION - OUTBOARD NACELLE	
DRAFTED G. OSTERLOH	6-20-57	7-17-57				ISSUE NO.	DWG. TITLE
CHECKED T. BURDO	7/8/7	7-17-57				ARR. 10463	ADCN
<i>E. H. H. H.</i>	7/11/7	DONALDSON 6-7000 REQUESTED				CHG. NO.	DRAWING NO.
APPROVED <i>P. Donaldson</i>	7/11/57				SEC. NO. 74		SHT.
APPROVED <i>7/11</i>		PROD. INFO.			1-99 8301 -		
					CHG. EFF 999		

PARTS LIST ZONE	REPLACES							RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
	10-9-8-7-6-5-4-3-2-1															
	V V V V V							1	65-4105	FIRE DETECTOR INSTL						

CHANGE P/L AS SHOWN ABOVE

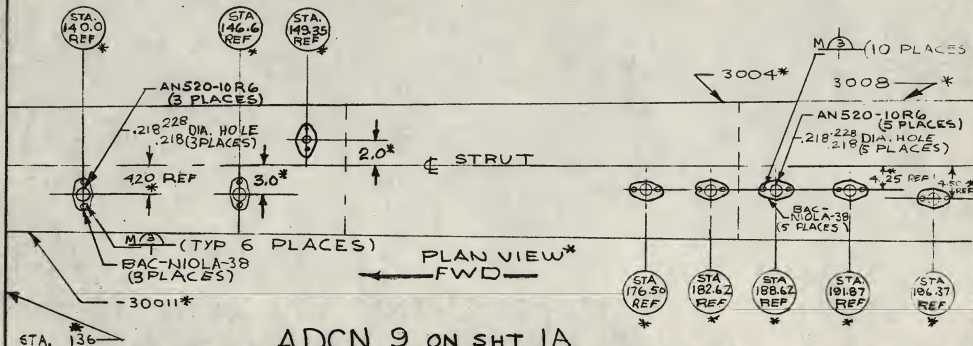
AIRP. SEC. 750.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS				PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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1-20 4T

MODEL 707	7-1-57	DWG. REC. CLK 8/27/10/57 7-17-5 66	BOEING AIRPLANE COMPANY <div style="border: 1px solid black; padding: 5px; display: inline-block;"> ADVANCE DRAWING CHANGE NOTICE <small>THE DWT WILL BE CHANGED TO INCLUDE THIS ADDN</small> <input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION REASON: ADDED HOLES \$ NUT PLATES FOR FIRE DETECTOR INSTL. </div>	ISSUE NO. PRR 10453 GHO. NO. SEC. NO. 76 1-199 \$ 301-1999 CHG EFF.	LOWER SPAR INSTALLATION INSD NAC. STRUT DWG. TITLE ADCN DRAWING NO. SHT.	
DRAFTED G. OSTERLOH	7-1-57	RELEASE		17	8-8100	2A
CHECKED T. BURDO	7/9/57	R/P GROUP		14	8-8100	1A
APPROVED <i>Donaldson</i>	7/11/57	DONALDSON 6-7000 REQUESTED				
APPROVED <i>Billen</i>	7/11	PROD. INFO.				

PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
		✓	8 BAC-NIOLA-38	NUT PLATE						
		✓	8 AN520-10RG	SCREW, MACH.						

CHANGE P/L IN SHT 1A AS SHOWN ABOVE
CHANGE PICTURE IN SHT 2A AS SHOWN BELOW



ADCN 9 ON SHT 1A
\$ ADCN 12 ON SHT 2A
WILL NOT BE RELEASED

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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- 1-74 17 NOT PROCESS

MODEL 707	77-17-57 DWG. REC. CLK 267-17-57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ADCH <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: INCORRECT PART NUMBER CALLED OUT. (ENGRG. ERROR)		ISSUE NO.	DWG. TITLE COWL PANEL ASSY L.H. SIDE ENG. NAC.		ADCN	DRAWING NO.	SMT.	
DRAFTED M.R. MATTESSON	RELEASE 6-19-54			PR55000 CHG. NO.	R-6 5-85637					4A
CHECKED DARTON	S/P GROUP 4-14-51 REQUESTED			SEC. NO. 71						
STRESS HECHT	4/12/57			1 THRU 193						
APPROVED <i>[Signature]</i>				301 THRU 1999						
APPROVED <i>[Signature]</i>	4/12/57	PROD. INFO.		CHG. EFF.						
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P

REVISE CALLOUT IN ZONES A3, B2, D2, D3, & D4 AS SHOWN:

~~-3034~~
 -3045
 *CHG IN ZONES A3, B2, D2, D3, & D4

DEC CHG

*ADCN REF.

▷ DWG CLARIFICATION ONLY. (AIRP. PARTS NOT AFFECTED)

KC-135 NOT AFFECTED.

<input checked="" type="checkbox"/> RELEASED <input type="checkbox"/> CANCELLED KC-135 707	CHECKED CHECKED APPROVED <i>[Signature]</i> 7/1/72
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

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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8-80 17

MODEL 707	577-757 DWG. REC. CLK 6-26-57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DRAWING WILL BE CHANGED TO INCLUDE THIS ADDITION <input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION REASON: ADDED PARTS FOR 4 HOLE DRAIN SYSTEM CHANGED FLAG NOTES.	B	PLUMBING INSTL OUTBD NAC. DWG. TITLE STRUT
DRAFTED G. OSTERLOH	6-26-57	RELEASE 7-11-57 S.P. GROUP	ISSUE NO. PRR, 10218 CHG. NO.	ADCN 6
CHECKED T. BURDO	6/28/57	DONALDSON 6-7000 REQUESTED	SEC. NO. 79	DRAWING NO. 50-5548
STRESS				
APPROVED <i>Donaldson</i>	7/1/57		301-1999 1-199	
APPROVED <i>REHage</i>	7-2-7	PROD. INFO.	CHG. EFF.	

PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
15	0-4-3-2-1	2	MS21907-8C	ELBOW-TUBE-45°						
16		3	AN924-8C	NUT-BLKD						
17		6	MS29512-B	"O" RING						
18		3	AN806-CB	PLUG						
49		1	10-60104	HOSE ASSY (DRAIN)						
14	X 4	1	MS21908-8C	ELBOW 90°						
15	X 4	1	MS21902-8C	UNION						
10		1	AN924-B	NUT-BLKD						
50		1	10-60104	HOSE-ASSY						

CHANGE PL AS SHOWN ABOVE

REMOVE  AS SHOWN BELOW.~~ COLOR BAND PER BAC 5001 WITH TAPE BAC-THS-52F~~ ADCN REF ONLY - REPLACING PART WILL BE SHOWN ON ENGINE PLUMBING INSTL

HP 7/8/57

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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6-76 17




MODEL 707	27-24-97 DWG. REC. CLK 507-30-57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE SPEC WILL BE CHANGED TO INCLUDE THIS DRAWING <input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION REASON: TO BRING P/L UP TO DATE.		A ISSUE NO. PRR 10453 CHG. NO.		COWL INSTL ENGINE NAC. DWG. TITLE ADCN		DRAWING NO. 2 50-3371		SHT. 1A		
DRAFTED T. BURDO	7-1	RELEASE 7-30-57			SEC. NO. 71							
CHECKED <i>Chrysler</i>	7-22	S/P GROUP DONALDSON 6-7000 REQUESTED			1-99,301-1999							
STRESS					101-199							
APPROVED <i>Chrysler</i>	7-22				CHG. EFF.							
APPROVED <i>Release</i>	7-237	PROD. INFO										

PARTS LIST ZONE	REPLACES	-3000	-3000	-3000	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
		✓	✓	✓	+	50-8281	FAIRING ASSY FWD.	A5					
		✓	✓	✓	+	65-6487	FAIRING INSTL-AUX						
NEW	✓				1	5-85638 -3096	R.H. SIDE PANEL ASSY	C7					
NEW	✓				1	5-85637 -3095	L.H. SIDE PANEL ASSY	B6					
		✓	✓	✓	1	5-85637 -3000	L.H. SIDE PANEL ASSY						
		✓	✓	✓	1	5-85638 -3000	R.H. SIDE PANEL ASSY						

CHANGE P/L AS SHOWN ABOVE:

CHANGE T/B AS SHOWN BELOW:

REF 7/26/7

71	4	50-8220	707	1 THRU 99	50-3371 -3000			
71	4	50-8220	707	101 THRU 199	50-3371 -3000			
71	4	50-8220	707	TOT THRU 199 - 301 THRU 1999	50-3371 -3000			
AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.

AP 7/26/77

A
D
C
N

A
D
C
N

BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE

THE SPEC WILL BE CHANGED TO INCLUDE THIS ADDN
☐ DEVIATION ☒ VARIATION
 TO INSURE POSITIVE LOCATION OF
 REASON: IRREGULAR OML'S & HOLD
 FRAMES RELATIVE TO BOTH LONGERONS
 & ATTACH POINTS. (MFG. FACILITY)

ADD COORDINATING HOLES AS SHOWN BELOW:

ADD COORDINATING HOLES AS SHOWN BELOW:

* (ADD COORDINATING HOLES)

*B.L. 15.50

*W.L. 115.50

*3021

*ZONE E4

*3021

*B.L. 11.00

*W.L. 77.50

*ZONE A5

*STA. 190.00

*ACCN REF.

*ADCN REF.

P> EXISTING PARTS & ASSY'S MAY BE USED WITHOUT REWORK.

FOR KC-135-SEE ADCN RI-8 S/S ON 5-85638

[illegible]

2-7000

6-74 IT NOT PROCESS.

MODEL	707	27-30-57
R. MATTESON	4/1/57	DWG. REC. CLK.
DRAFTED		127-3057
CHECKED	DARTON	RELEASE
STRESS	HECHT	7-30-57
APPROVED	4/1/57	B/P GROUP
APPROVED	4/1/57	ROHR
PARTS LIST ZONE	REPLACES	REQUESTED
		PROD. INFO.

BOEING AIRPLANE COMPANY

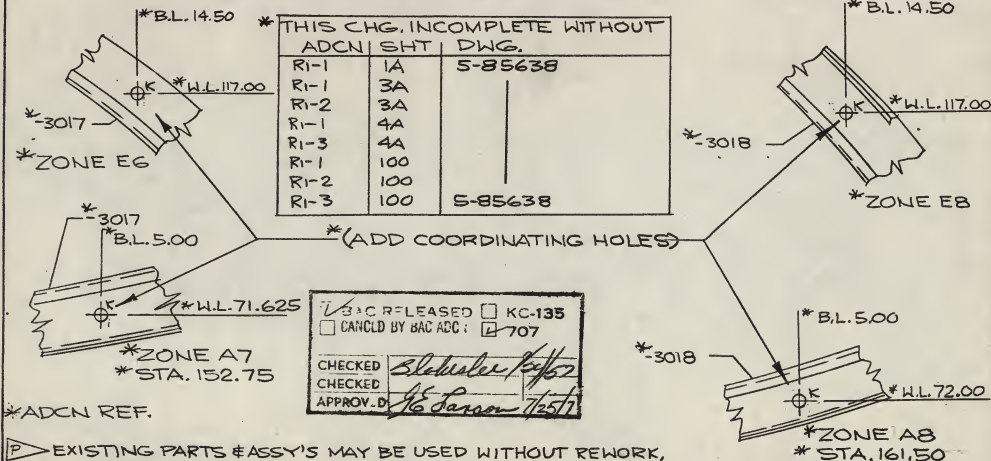
ADVANCE DRAWING CHANGE NOTICE

THE DWG WILL BE CHANGED TO INCLUDE THIS ADDN
☐ DEVIATION ☒ VARIATION
 TO INSURE POSITIVE LOCATION OF
 REASON: IRREGULAR OML'S & HOLD
 FRAMES RELATIVE TO BOTH LONGERONS
 & ATTACH POINTS. (MFG. FACILITY)

COWL PANEL ASSY R.H. SIDE ENGINE NACELLE		
DWG. TITLE		
ISSUE NO.	ADCN	DRAWING NO.
PRR10087	R1-2	5-85638
CHG. NO.		SHT.
		4A
SEC. NO.		
71		
1 THRU 199		
301 THRU 1999		
CHG. EFF.		

RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (EXCESS, NET)	MATERIAL	HEAT TREAT	FINISH	P
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ADD COORDINATING HOLES AS SHOWN BELOW:



<input checked="" type="checkbox"/> BAC RELEASED	<input type="checkbox"/> KC-135
<input type="checkbox"/> CANCELED BY BAC ADD:	<input checked="" type="checkbox"/> 707
CHECKED	Blahslaw
CHECKED	
APPROV.-D	4/5 Larson 1/25/57

FOR KC-135 SEE ADCN R1-12 S/4 ON 5-85638

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG. SHEET NO.
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6-74 17

NOT PROCESS

MODEL 707	277-30-57 DWG. REC. CLK. 6-7-80-57
R. MATTESON DRAFTED	ELEAVE 7-30-57
CHECKED <i>DARTON</i>	B/P GROUP ROHR 4-1-386
STRESS HECHT	REQUESTED
APPROVED <i>J. Burkhardt 4/1/57</i>	P
APPROVED <i>J. H. H. 4/1/57</i>	PROD. INFO.
PARTS LIST ZONE	REPLACES
RECD	PART NUMBER
NOMENCLATURE	ZONE CODE
STOCK SIZE (APPROX. NET)	MATERIAL
HEAT TREAT	FINISH
P	

BOEING AIRPLANE COMPANY
ADVANCE DRAWING CHANGE NOTICE
THE DWG WILL BE CHANGED TO INCLUDE THE ADON
☐ DEVIATION ☒ VARIATION
TO INSURE POSITIVE LOCATION OF
REASON: IRREGULAR OML'S & HOLD
FRAMES RELATIVE TO BOTH LONGERONS
& ATTACH POINTS. (MFG. FACILITY)

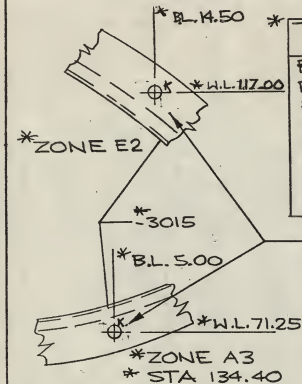
ISSUE NO. FRR 10087	ADCN R-1	DRAWING NO. 5-85638	SHT. 4A
CHG. NO. 71			
SEC. NO. 1 THRU 199			
301 THRU 1999			
CHG. EFF.			

COWL PANEL ASSY R.H.
SIDE ENGINE NACELLE.
DWG. TITLE

ADD COORDINATING HOLES AS SHOWN BELOW:

THIS CHG. INCOMPLETE WITHOUT ADCN SHT DWG		
R-1	1A	5-85638
Ri-1	3A	
Ri-2	3A	
Ri-2	4A	
Ri-3	4A	
Ri-1	100	
Ri-2	100	
Ri-3	100	5-85638

(ADD COORDINATING HOLES)

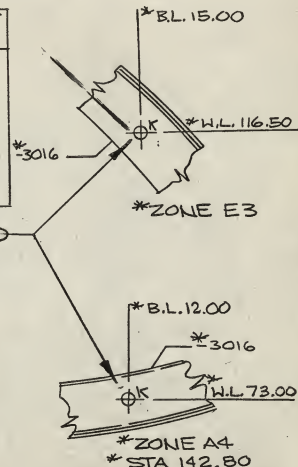


*ADCN REF.

P EXISTING PARTS & ASSY'S MAY BE USED WITHOUT REWORK.

FOR KC-135 SEE ADCN Ri-11 S/4 ON 5-85638

<input checked="" type="checkbox"/> BAC RELEASED	<input type="checkbox"/> KC-135
<input type="checkbox"/> CANCEL BY BAC ADCN	<input checked="" type="checkbox"/> 707
<i>Stakula 7/6/57</i> <i>J. Larson 7/6/57</i>	



*ZONE A4
*STA 142.80

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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1-2047 NOT PROCESS

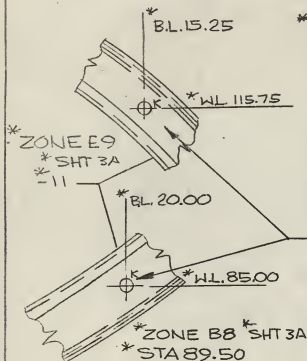
MODEL 707	7-30-57 DWG. REC. CLK.
DRAFTED R. MATTESON	RELEASE 5-10-59
CHECKED DUTTON	S/P GROUP ROHP
STRESS HECHT	4-13-58 REQUESTED
APPROVED <i>[Signature]</i>	P PROD. INFO.
APPROVED <i>[Signature]</i>	
PARTS LIST ZONE	REPLACES
REQD	PART NUMBER

BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE

THE CHG. WILL BE CHARGED TO INCLUDE THE ADDN
☐ DEVIATION ☒ VARIATION
 TO INSURE POSITIVE LOCATION OF
 REASON: IRREGULAR CML'S & HOLD
 FRAMES RELATIVE TO BOTH LONGERONS
 & ATTACH POINTS (MFG. FACILITY)

COWL PANEL ASSY R.H. SIDE ENGINE MACELLE	
ISSUE NO. PRR 10087 CHG. NO.	DWG. TITLE ADCN R-1 5-85638 1A
SEC. NO. 71	DRAWING NO. R-1 5-85638 3A
1 THRU 199 301 THRU 1999 CHG. EFF.	
ZONE CODE	STOCK SIZE (APPROX. NET)
MATERIAL	HEAT TREAT
FINISH	P

SHT 3A, ADD COORDINATING HOLES AS SHOWN BELOW:



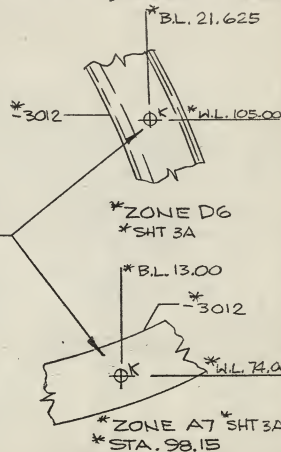
* THIS CHG INCOMPLETE WITHOUT

ADCN	SHT	DWG
R1-2	3A	5-85638
R1-1	4A	
R1-2	4A	
R1-3	4A	
R1-1	100	
R1-2	100	
R1-3	100	5-85638

*(ADD COORDINATING HOLES)

SHT 1A, ADD TO GENERAL NOTES
AS FOLLOWS:

* ADD .250/.260 DIA. COORDINATING HOLE
 * ADD PLUG COORDINATING HOLES WITH M 1/8
 IN -3019 FRAME ONLY.



* ADCN REF.

EXISTING PARTS & ASSY'S MAY BE USED WITHOUT REWORK.

FOR KC-135 SEE ADCN'S R1-7 S/1 & R1-11 S/3 ON 5-85638

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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6-2047

NOT PROCESS

MODEL 707	DWG. REC. CLK. 7-30-57
DRAFTED R. MATTHESON	RELEASE 7-30-57
CHECKED DARTON	R/P GROUP ROHR
STRESS HECHT	4-1386 REQUESTED
APPROVED <i>E. Schubert</i>	P
APPROVED <i>G. H. Johnson</i>	PROD. INFO.
PARTS LIST ZONE	REPLACES
REQD	PART NUMBER

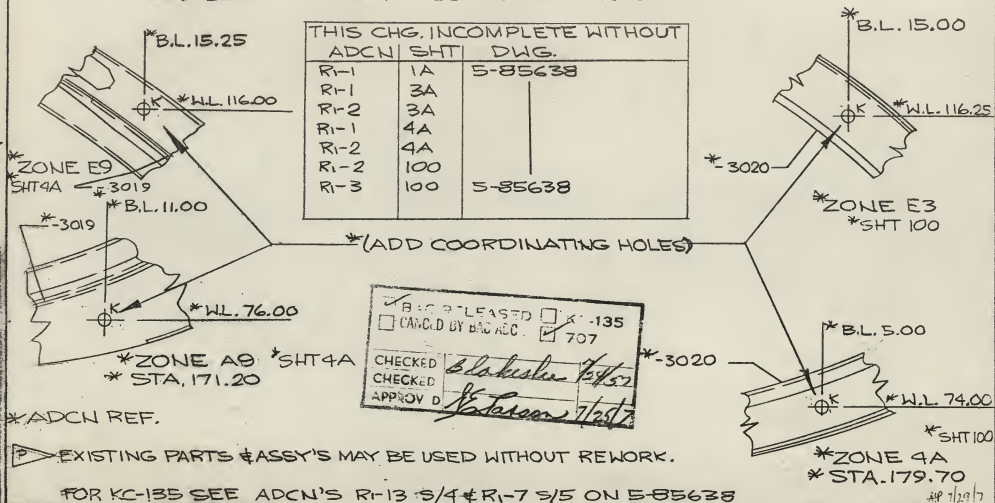
BOEING AIRPLANE COMPANY

ADVANCE DRAWING CHANGE NOTICE

THE DWG WILL BE CHANGED TO INCLUDE THIS ADVN
☐ DEVIATION ☒ VARIATION
 TO INSURE POSITIVE LOCATION OF
 REASON: IRREGULAR OML'S & HOLD
 FRAMES RELATIVE TO BOTH LONGERONS
 & ATTACH POINTS. (MFG. FACILITY)

ISSUE NO. PRR 10087	ADCN Ri-3	DRAWING NO. 5-85638	SHT. 4A
CHG. NO. 71	Ri-1	5-85638	100
SEC. NO. 1 THRU 199			
301 THRU 1999			
CHG. EFF.			

ADD COORDINATING HOLES AS SHOWN BELOW:



AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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6-204T

NOT PROCESS

MODEL 707	DWG. REC. CLK. 10-30-57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE		COWL PANEL ASSY R.H. SIDE ENGINE NACELLE	
DRAFTED R. MATTHESON	DATE 6/10/57	REASON FOR CHANGE <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION		DWG. TITLE	
CHECKED DARTON	S/P GROUP ROHR	TO INSURE POSITIVE LOCATION OF REASON: IRREGULAR OML'S & HOLD FRAMES RELATIVE TO BOTH LONGERONS & ATTACH POINTS. (MFG. FACILITY)		ISSUE NO. PRR 10087	ADCN R-3
STRESS HECHT	REQUESTED 4-1386			CHG. NO. 71	DRAWING NO. 5-85638
APPROVED <i>[Signature]</i>	PROD. INFO. P			SEC. NO. 1 THRU 199	SHT. 4A
APPROVED <i>[Signature]</i>				301 THRU 1999	100
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE
					STOCK SIZE (APPROX. NET)
					MATERIAL
					HEAT TREAT
					FINISH
					P

ADD COORDINATING HOLES AS SHOWN BELOW:

		<p>THIS CHG. INCOMPLETE WITHOUT ADCN SHT DWG.</p> <table border="1"> <tr> <td>R-1</td> <td>1A</td> <td>5-85638</td> </tr> <tr> <td>R-1</td> <td>3A</td> <td></td> </tr> <tr> <td>R-2</td> <td>3A</td> <td></td> </tr> <tr> <td>R-1</td> <td>4A</td> <td></td> </tr> <tr> <td>R-2</td> <td>4A</td> <td></td> </tr> <tr> <td>R-2</td> <td>100</td> <td></td> </tr> <tr> <td>R-3</td> <td>100</td> <td>5-85638</td> </tr> </table>	R-1	1A	5-85638	R-1	3A		R-2	3A		R-1	4A		R-2	4A		R-2	100		R-3	100	5-85638	
R-1	1A	5-85638																						
R-1	3A																							
R-2	3A																							
R-1	4A																							
R-2	4A																							
R-2	100																							
R-3	100	5-85638																						
		<p>*(ADD COORDINATING HOLES)</p>																						
<p>*ZONE E9 *SHT 4A *3019</p>		<p>*ZONE E3 *SHT 100</p>																						
<p>*ZONE A9 *SHT 4A *STA. 171.20</p>		<p>*ZONE 4A *STA. 179.70</p>																						
<p>*ADCN REF.</p>		<p>*3020</p>																						
<p>EXISTING PARTS & ASSY'S MAY BE USED WITHOUT REWORK.</p>		<p>FOR KC-135 SEE ADCN'S R-13 S/4 & R-7 S/5 ON 5-85638</p>																						
AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS																				
				PART NUMBER	RELEASE COLUM IND																			
					DWG SHEET NO.																			

6-74-11 NOT PROCESS

MODEL	707	DWG. REC. CLK.	017-30-57
R. MATTESON	6/11/57	DWG. NO.	73839
DRAFTED		DATE	30-5716
CHECKED	DARTON	B/P GROUP	ROHR
STRESS	HECHT	4-1336	REQUESTED
APPROVED	6/11/57		
APPROVED	6/11/57		

BOEING AIRPLANE COMPANY

ADVANCE DRAWING CHANGE NOTICE

THE DWG WILL BE CHANGED TO INCLUDE THE AD CN

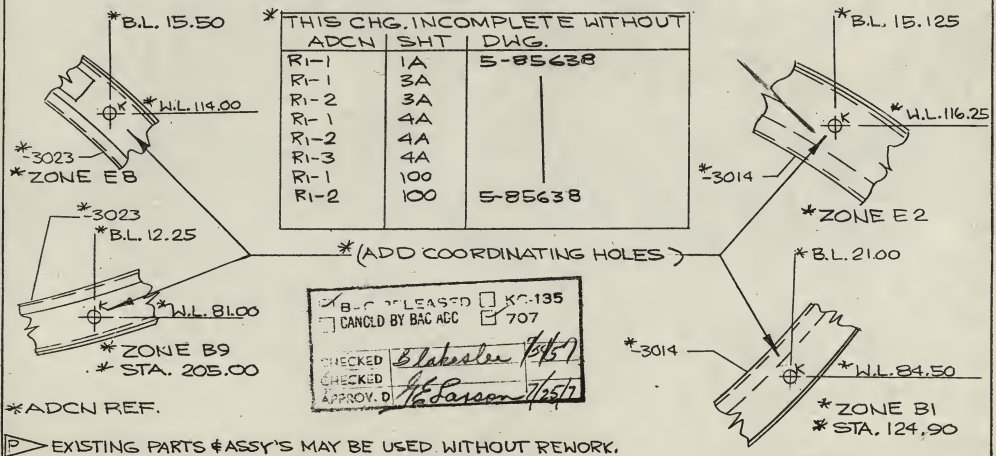
☐ DEVIATION ☒ VARIATION

TO INSURE POSITIVE LOCATION OF REASON: IRREGULAR OML'S & HOLD FRAMES RELATIVE TO BOTH LONGERONS & ATTACH POINTS. (MFG. FACILITY)

COHL PANEL ASSY R.H. SIDE ENGINE NACELLE	
DWG. TITLE	
ADCN	DRAWING NO.
PRR 10087	R-3 5-85638
CHG. NO.	100
SEC. NO.	71
1 THRU 199	
301 THRU 1999	
CHG. EFF.	

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
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ADD COORDINATING HOLES AS SHOWN BELOW:



FOR KC-135 SEE ADCN R1-2 5/5 ON 5-85638

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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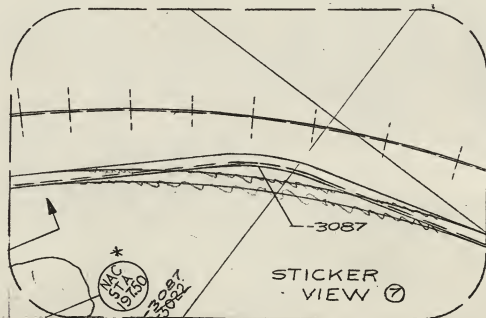
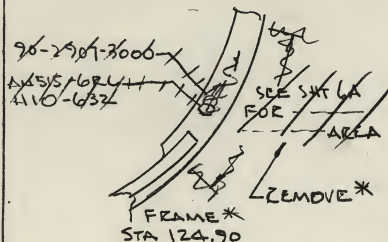
MODEL 707	7-17	277-30-57 DWG. REC. CLK 107-30-57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ACTION <input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION REASON: CLEARANCE REQUIRED FOR THRUST REVERSER ACTUATOR CYLINDER		COWL PANEL ASSY- R.H. SIDE, ENG NAC DWG. TITLE AD CN DRAWING NO. SHT.
DRAFTED B. HANSON		RELEASE 7-30-57 B.P. GROUP 6-7000	ISSUE NO. 10749	CHG. NO. PRR	
CHECKED L. Fujita		DONALDSON REQUESTED	SEC. NO. 71	1-199 &	
STRESS J. L. Linn	7-24-57		301-1999	CHG. EFF.	
APPROVED Donaldson	7/29/57				
APPROVED R. L. Linn	7-26-57	PROD. INFO			

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
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IN ZN DT CHANGE INSIDE CONTOUR ON FRAME STA 197.50 - STICKER ⑦
 CHANGE -3022 TO -3087 (3 PLACES)

IN ZN B1 & B2
 REVISE AS SHOWN
 BELOW ▶

▶ FWD FIRE CONTROL DOOR RELOCATED AFT
 TO STA 147.87



* ADCN REF ONLY

▶ REWORK EXISTING PARTS
 SCRAP -3022

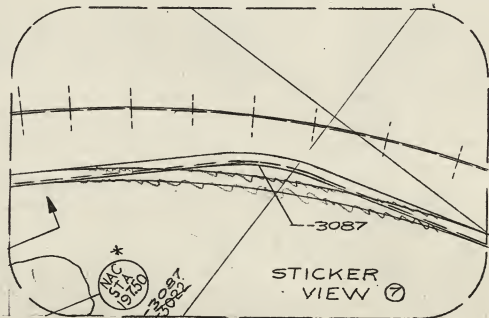
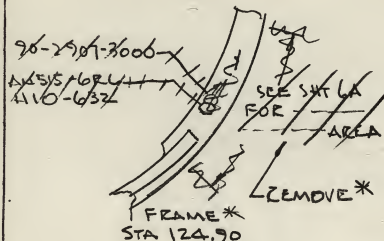
AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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MODEL 707		27-30-53 DWG REC CLK	BOEING AIRPLANE COMPANY		COWL PANEL ASSY- R.H. SIDE, ENG NAC	
DRAFTED B. HANSON	7-17	27-30-53	ADVANCE DRAWING CHANGE NOTICE		DWG. TITLE	
CHECKED J. Fujita		7-30-53	THE DWG WILL BE CHANGED TO INCLUDE THIS ACTION		ISSUE NO. 10749	
STRESS J. Linn	7-24-57	2-7000	<input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION		CHG. NO. PRR	
APPROVED Donaldson	7/29/57	DONALDSON	REASON: CLEARANCE		SEC NO. 71	
APPROVED R. L. Linn	7-26-57	REQUESTED	REQUIRED FOR		1-199 \$	
		PROD. INFO	THRUST REVERSER		301-1999	
			ACTUATOR CYLINDER		CHG. EFF.	
PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)
						MATERIAL
						HEAT TREAT
						FINISH
						P

IN ZN DT CHANGE INSIDE CONTOUR ON FRAME STA 197.50 - STICKER ⑦
CHANGE - 3022 TO -3087 (3 PLACES)

IN ZN B1 & B2
REVISE AS SHOWN
BELOW ▽

▽ FWD FIRE CONTROL DOOR RELOCATED AFT
TO STA 147.87



▽ REWORK EXISTING PARTS
SCRAP - 3022

* ADCN REF ONLY

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG. SHEET NO.
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MODEL	707
DESIGNED BY	R. MATTESON
DRAFTED	
CHECKED	DARTON
STRESS	HECHT
APPROVED	E. Buckard
APPROVED	P. H. Quinn

277-20-57
DWG. REC. CLK.
DATE
REVISION
GROUP
ROHR
4-1386
REQUESTED
P
PROD. INFO.

BOEING AIRPLANE COMPANY	
ADVANCE DRAWING CHANGE NOTICE	
REASON FOR CHANGE	REASON FOR CHANGE
DEVIATION	VARIATION
TO INSURE POSITIVE LOCATION OF	
REASON: IRREGULAR OML'S & HOLD	
FRAMES RELATIVE TO BOTH LONGERONS	
& ATTACH POINTS (MFG. FACILITY)	

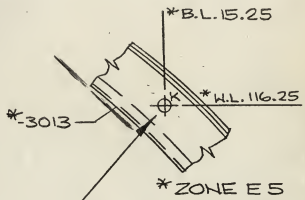
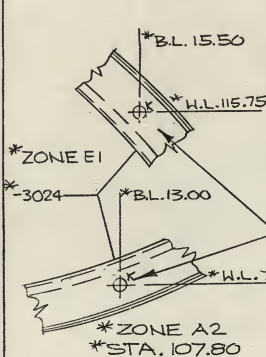
ISSUE NO.	PRR 10087
CHG. NO.	
SEC. NO.	71
1 THRU 199	
301 THRU 999	
CHG. EFF.	

COWL PANEL ASSY R.H. SIDE ENGINE NACELLE		
DWG. TITLE		
ADCN	DRAWING NO.	SHT.
R1-2	5-85638	3A

PARTS LIST	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
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ADD COORDINATING HOLES AS SHOWN BELOW:

THIS CHG. INCOMPLETE WITHOUT		
ADCN	SHT	DWG
R1-1	1A	5-85638
R1-1	3A	
R1-1	4A	
R1-2	4A	
R1-3	4A	
R1-1	100	
R1-2	100	
R1-3	100	
5-85638		



* (ADD COORDINATING HOLES)	
<input checked="" type="checkbox"/> BAC RELEASED <input type="checkbox"/> KC-135 <input type="checkbox"/> CANCELLED BY BAC ADG. 11 <input checked="" type="checkbox"/> 707	
CHECKED	Blakeslee 6/5/57
CHECKED	
APPROVED	R. Matteson 7/25/57
* ADCN REF.	
P EXISTING PARTS & ASSY'S MAY BE USED WITHOUT REWORK.	
FOR KC-135 SEE ADCN R1-12 5/3 ON 5-85638	
44713017	

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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A.T. ORDER NUMBER	SECTION 28 FUEL	PAA-121 D6-1048	AA-123 D6-2757	CAI-124 D6-2756	TWA-131 D6-2758	QSA-138 D6-2763	CUB-139	BFP-227 D6-2759	PAA-321	AF-328 D6-2761	SAB-329 D6-2760	TWA-331	LUFT-130 D6-2764	BOAC-136	ALL-137 D6-2762
		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>												
28-1	Fuel System <small>FUEL SYSTEM INSTALLATION DETAILS</small>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>												
28-2	Dual Fuel Check Valve	<input checked="" type="checkbox"/>													
28-3	Wing Center Section Tubing and Equipment Locations Diagram	<input checked="" type="checkbox"/>													
28-4	Drip Stick Fuel Level Indicator	<input checked="" type="checkbox"/>													
28-5	Fuel Tank Filler Cap Installa- tion Details	<input checked="" type="checkbox"/>													
28-6	Fuel Tank Arrangement	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											
28-7	Internal Fuel Tank Structure Seals	<input checked="" type="checkbox"/>													
28-8	Fuel Tank Removable Component Seals	<input checked="" type="checkbox"/>													
28-9	Main Tank Baffle Check Valves	<input checked="" type="checkbox"/>													
28-10	Wing Center Section Tank Alt Cells	<input checked="" type="checkbox"/>													
28-11	Wing Center Section Tank Cavity Drains	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>							

1-20 4/ NOT PROCESS

MODEL 707		DWG. REC. CLK. R71 6/18/57	BOEING AIRPLANE COMPANY <div style="border: 1px solid black; padding: 5px; display: inline-block;"> ADVANCE DRAWING CHANGE NOTICE <small>THE DWG WILL BE CHANGED TO INCLUDE THIS ADV.</small> <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION </div>		ISSUE NO. PRR 10087	COWL PANEL ASSY- LEFT HAND SIDE; DWG. TITLE ENGINE NACELLE		
DRAFTED <i>M.R. Matteson</i>	5/5/57	RELEASE 6-18-59 1B			CHG. NO.	ADCN	DRAWING NO.	SHT.
CHECKED <i>L. Dutton</i>	5/5/57	R/P GROUP ROHR 4-1353			SEC. NO.	R-1	5-85637	1A
STRESS <i>Rev. Perkins</i>	7/6/57	REQUESTED				R-1	5-85637	4A
APPROVED			 REASON: TWO DIFFERENT PARTS HAVE THE SAME CALLOUT. (ENGRG. ERROR)		1 THRU 199 301 THRU 1999 CHG. EFF.			
APPROVED <i>L. Dutton</i>	7/6/57	PROD. INFO.						

PARTS LIST ZONE	REPLACES	-3000	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
1-4:		-3062	1	-3040	ANGLE	B4	4A .025X2.50X12.00	3D2		F10.10	R
		-3062	1	-3800	ANGLE	B4A	.025X2.50X12.00	3D2		F10.10	R

SHT 1A, REVISE PARTS LIST AS SHOWN ABOVE:

SHT 4A, CHANGE -3040 TO -3800 IN ZONES B4 & B2 AS SHOWN:

~~-3800~~
~~-3040~~
 IB3 *ZONE B4

BACK TO STOCK NO. 135
 CHANGED BY: *[Signature]*
 CHECKED: *Blahut* 4/15/57
 APPROVED: *L. Dutton* 6/14/57

~~-3800~~
~~-3040~~
 3D2 *ZONE B2

*ADCN REF. ONLY.

▷ DWG. CLARIFICATION ONLY. (AIRP. PARTS NOT AFFECTED)

KC-135 NOT AFFECTED.

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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MODEL 707

DRAFTED F. Mc DONOUGH 5/21/57

CHECKED *[Signature]* 6/11

STRESS *G. Faxon* 6/11/57


APPROVED *W. Donaldson* 6/11/57

APPROVED *R. Elledge* 6/12/57

DWG. REC. CLK. 6-17-57
R.Y. 6/18/57

RELEASE 6-18-57
B/P GROUP

DONALDSON
REQUESTED

PROD. INFO. 

BOEING AIRPLANE COMPANY
SEATTLE 14, WASHINGTON

ADVANCE DRAWING CHANGE NOTICE

THE DWG WILL BE CHANGED TO INCLUDE THIS ADDN
☐ DEVIATION ☐ VARIATION

REASON: TO SUPPORT SKIN AT
VENT HOLE CUT-OUT & TO
ADD REAR COWL FRAME

1-78 17

NEW

COWL PANEL ASSEMBLY
LEFT HAND SIDE

DWG. TITLE ENG. NACELLE

ISSUE NO. PRR 10087-1

CHG. NO. 4

SEC. NO. 71

1-199, 301-1993

CHG. EFF.


ADCN

DRAWING NO. 5-85637

SHT. 1A

PARTS LIST ZONE	REPLACES	3000	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
	NEW	✓	1	-3085	DOUBLER	C62A	.040x3.5 DIA	502	-	502115	R
	NEW	✓	1	65-6911-1	FRAME INSTL STA. 213.75	4B2A					

ADD TO P/L AS SHOWN ABOVE

 RE-WORK EXISTING PARTS

MODEL 707		4-11-57 DWG. REC. CLK. 6-18-57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE <small>THE DWG. WILL BE CHANGED TO INCLUDE THIS ADDN.</small> <input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION		NEW ISSUE NO. PRR 10087-1 CHG. NO.	COWL PANEL ASSEMBLY RIGHT HAND SIDE DWG. TITLE ENG. NACELLE				A D C N	
DRAFTED F. M. DONOUGH	5/21/57	RELEASE 6-18-57				ADCN	DRAWING NO.	SHT.			
CHECKED <i>[Signature]</i>	6/11	R/P GROUP DONALDSON				2	5-85638	1A			
STRESS APPROVED <i>[Signature]</i>	6/14/57	REQUESTED	REASON: TO ADD REAR COWL FRAME		SEC. NO. 71						
APPROVED <i>[Signature]</i>	6-12-57	PROD. INFO.			1-199, 301-1999 CHG. EFF.						
PARTS LIST ZONE	REPLACES	QTY.	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
	NEW	✓	1	65-6911-2	FRAME INSTL STA. 213.75	B102A					

ADD TO P/L AS SHOWN ABOVE

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS				PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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MODEL	707	DWG. REC. CLK.	6-17-57	BOEING AIRPLANE COMPANY		NOSE COWL ENGINE NACELLE DWG. TITLE ASSY OF.	
DRAFTED	HULL, C.W.	RELEASE	6-18-57	ADVANCE DRAWING CHANGE NOTICE		ISSUE NO.	ITEM 7130
CHECKED	H.D. DARTON	R/P GROUP	6-18-57	REASON: <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION		CHG. NO.	R-20
STRESS	R.W. Lockman	REQUESTED	4-1286	707 SPLICE PLATE DIFFERS FROM CORRESPONDING		SEC. NO.	R-7
APPROVED	R.W. Lockman	PROD. INFO.		KC 135 PART & THEREFORE REQ'S A3000 SERIES NO. (ENG'G ERROR)			5-85655
APPROVED	R.W. Lockman						101

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
	-3067-3060	-3000								
1-33	✓	✓	2	-38	SPLICE PLATE	.050x.160x26.0	7	-	F2.H5	R
1-39	✓	✓	2	-3823	SPLICE PLATE	.050x.160x26.0	7	-	F2.H5	R

REVISE PARTS LIST AS SHOWN ABOVE

CHANGE FACE OF DWG AS SHOWN BELOW

* ~~-3823~~
ZONE 6B SHT. 101.

* ~~-3823~~
ZONE 4F, SHT. 101.

* ~~-3823~~
ZONE 4A SHT. 101

* FOR ADCN REF ONLY.

▷ REWORK EXISTING PARTS NOT ASSEMBLED.

KC 135 NOT AFFECTED.

☒ BAC RELEASED ☐ KC-135
☐ CANCELLED BY DTC ADDY ☒ 102

CHECKED: Blakely 4/1/57
CHECKED: J.E. Larson 4/12/57
APPROVED: J.E. Larson 4/12/57

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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1-66 IT

A D C N

MODEL	707-120	DWG. REC. CLK.	6-17-77	BOEING AIRPLANE COMPANY		NEW		COWL INSTL ENGINE	
DRAFTED	G. WOODS	RELEASE	6-18-57	ADVANCE DRAWING CHANGE NOTICE		ISSUE NO.	DWG. TITLE	ADCN	DRAWING NO.
CHECKED	<i>Stingless</i>	B/P GROUP	6-18-57	THE DWG. WILL BE CHANGED TO INCLUDE THIS ADDN		PRR 10087-1	1	50-3371	IA
STRESS		P. Donaldson	6-7-70	REASON: TO ADD AUXILIARY FAIRING — TO BRING P/L & TAB BLOCK UP TO DATE		CHG. NO.			
APPROVED	<i>Donaldson</i>	REQUESTED P.P.		<input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION		SEC. NO.	71		
APPROVED	<i>REHAGE</i>	PROD. INFO.				1-122, 301-1999			

PARTS LIST ZONE	REPLACES	READ	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
	3001	3000								
	✓	+	5-85638							
			3001							
	✓	+	5-85637							
			3001							
NEW	✓	✓	65-6487	FAIRING INSTL. AUXILIARY						
	✓	✓	50-8281							
	▷	1	69-3165	VENT INSTL FUEL PRES. TRANSMITTER						

CHG & ADD TO P/L AS ABOVE

AMONG GEN. NOTES ADD: - ▷ AIRPS 1 THRU 99

CHG TAB BLOCK AS SHOWN

Att 613

71 ~~4~~ 50-8220 707 1 THRU 199 —

71 4 50-8220 707 1 THRU 199 — 301 THRU 1999

50-3371

~~3001~~

50-3371

~~3000~~

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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MODEL <u>707</u>		JAN 6-18-57 DWG. REC. CLK		BOEING AIRPLANE COMPANY <h1 style="text-align: center;">ALPHA</h1> <h2 style="text-align: center;">ADVANCE DRAWING CHANGE NOTICE</h2> <p style="text-align: center; font-size: small;">THE DWG. WILL BE CHANGED TO INCLUDE THIS ACTION</p> <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: COMPLETION OF BASIS DESIGN.		ISSUE NO.		CONTROL SYS INSTL THRUST REVERSER		ADDCN											
DRAFTED <u>N.P. WEED</u>		4/13/57				7820		DWG. TITLE													
CHECKED <u>D. Carley</u> 6-14-57		RELEASE 6-12-57				CHG. NO.		ADCN													
STRESS		B/P GROUP 6-7000				SEC. NO.		DRAWING NO.													
APPROVED <u>D.C. 6-14-57</u>		PEARSON REQUESTED		CHG. EFF.		SMT.															
APPROVED <u>J.L. Bennett</u> 4/15/57		PROD. INFO.																			
PARTS LIST ZONE		REPLACES		RECD		PART NUMBER		NOMENCLATURE		ZONE CODE		STOCK SIZE (APPROX. NET)		MATERIAL		HEAT TREAT		FINISH		P	
<div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <p>IN ZN C3, C7 CHANGE CALLOUT AS SHOWN.</p> <p>BAC-B10-640 REP 4F5-2</p> </div> <div style="width: 50%;"> <p>IN ZN A4, C7 CHANGE CALLOUT AS SHOWN.</p> <p>BAC-B10A-620 KP4A-7-ST.</p> </div> <div style="width: 50%;"> <p>IN ZN B7, C7 CHANGE CALLOUT AS SHOWN.</p> <p>BAC-B10B-316 5NBC 713 S</p> </div> <div style="width: 50%;"> <p>IN ZN C5, C6 CHANGE CALLOUT AS SHOWN.</p> <p>BAC-B10B-301 3NBF 512S</p> </div> <div style="width: 50%;"> <p>IN ZN A6 CHANGE CALLOUT AS SHOWN.</p> <p>BAC-B10A-610 B542 ZZ-2-ST</p> </div> <div style="width: 100%; text-align: center;"> <p>IN ZONE C6 SECT VIEW 3BT REMOVE CALLOUT. BAC-B10A-640 AS SHOWN.</p> <p>BAC-B30BH-5C-40 AN 320 C-5 AN 3B1-2-10 BAC-B10A-640 AN 960-C-516 NAS 43-5-72 63-2525</p> </div> </div>																					
AIRP. SEC. NO.		QTY. PER AIRP.		USED ON DWG. NO.		MODEL		AIRPLANE SERIAL NUMBERS				PART NUMBER		RELEASE COLUMN IND		DWG SHEET NO.					

6-53 21

MODEL 707	6-12-7	706-18-7 DWG REC. CLK. 70678-57 RELEASE 6-16-78 B/P GROUP ROHR REQUESTED PROD. INFO.	BOEING AIRPLANE COMPANY <small>SEATTLE 14, WASHINGTON</small> ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ACTION <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION	# ISSUE NO. 7812 CHG. NO. 1 SEC. NO. 78 -1 ASSY ONLY CHG. EFF.	TURNING VANE THRUST REVERSER DWG. TITLE ADCN DRAWING NO. 65-4298 SMT.
DRAFTED S. WOOD	6-12-7				
CHECKED L. Greengard	6/14/7				
STRESS					
STANDARDS					
APPROVED					
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE
					STOCK SIZE (APPROX. NET)
					MATERIAL
					HEAT TREAT
					FINISH
					P

CHANGE DIMS. INDICATED BELOW IN ZN A4

ASSY NO	DIM "A" ±.01	DIM "B"	DIM "X"	DIM "Y"
-81	3.070	3.120 3.128	.030	.035
-83	3.050	3.120 3.128	.035	.050
-85	3.000 2.957	3.120 3.128	.025 .050	.1250
-87	2.950	3.120 3.128	.1250	.054
-89	3.820	3.985 3.899	.064	.025
-91	4.150 4.177	4.224 4.231	.054	.000

NO PARTS MADE - PART NUMBERS NOT CHANGED

WORK PRESS. PSI	NUMBER	REQD	NUT	SLEEVE	REQD	ZONE	SMT	TUBE OD	WALL THICK	MATERIAL	HEAT TREAT	FINISH	TUBING IDENTIFICATION	TYPE ENDS	MIN STOCK LGTH
	TUBE ASSY		END FITTINGS PER TUBE ASSY			ZONE CODE									

July 12, 1957

TRANSPORT DIVISION GRAPHIC AIDS WEEKLY REPORT

707

The following new and revised transparencies were released during the week ending June 27, 1957.

NEW

121-22-6	FB-20D Autopilot Rudder Control Circuit
121-23-1	Electronic Rack Electrical Cooling Circuit
121-21-40	Cabin Pressurization - Rate Control and Jet Pump Operation
121-73-10	Fuel Pressure Indicating System Schematic
121-21-39	Cabin Pressurization - Safety Relief Operation
121-77-1	Engine Pressure Ratio System Schematic
436-21-25	Pressurization System

REVISED

121-21-24	Rev B	Turbocompressor Operational Flow Diagram
121-22-1	Rev A	FB-20D Autopilot Power Supply
121-26-1	Rev C	Engine Fire Detector
138-21-25	Rev A	Pressurization System
121-21-25	Rev D	Pressurization System

The following Art Orders and Change Art Orders were received during the week ending June 27, 1957.

ART ORDERS

121-SP15	Selected 707 Systems Chart (2)
121-26-6	Engine Fire Switch Schematic

CHANGE ART ORDERS

121-82-1	Rev C	Engine Water Injection System
121-27-15	Rev A	Wing Flap System Schematic
121-82-3	Chg 1	Water Pump and Drain Valves
121-79-5	Chg 1	Engine Oil Tank
121-24-26	Chg 2	Radio and T-R Circuit Breaker Panel (P5)

During the week ending June 27, 1957 additional time was requested for incorporation of the following Master Changes on Graphic Aids Transparencies.

<u>MC</u>	<u>HOURS</u>	<u>MC</u>	<u>HOURS</u>
460-4	10	445-4	35
460-5	10	448	20
460-6	10	508-3	140
460-8	10	508-2	140
460-9	10	496-23	35
659-23	20	496-22	35
560-3	30		
		TOTAL --	505

707 Weekly Report (June 27, 1957)
Page Two

707 STATUS

Backlog Status as Follows:

	<u>NUMBER</u>	<u>ESTIMATED HOURS TO COMPLETE</u>
Art orders unassigned	14	840
Art orders in work	69	2070
Change A.O. unassigned	1	20
Change A.O. in work	5	50
Customer A.O. unassigned	2	100
Customer A.O. in work	13	260
Customer C.A.O. in work	1	10

Total Hours - 3350

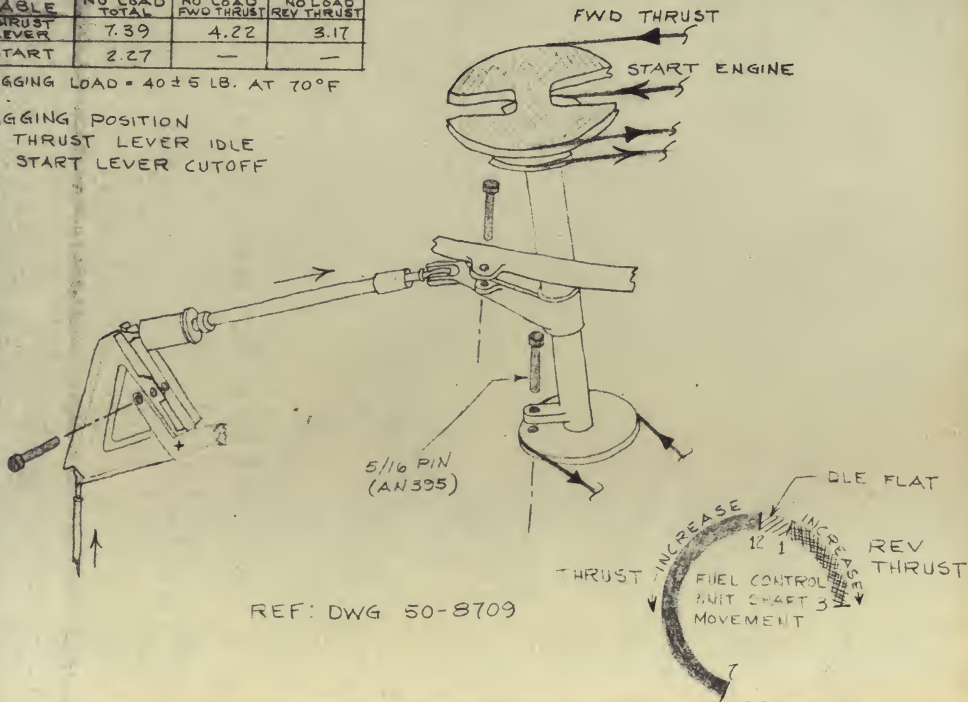


D. D. True
Graphic Aids Group

CABLE TRAVEL			
CABLE	NO LOAD	NO LOAD	NO LOAD
THRUST	TOTAL	FWD THRUST	REV THRUST
THRUST LEVER	7.39	4.22	3.17
START	2.27	—	—

RIGGING LOAD = 40 ± 5 LB. AT 70°F

RIGGING POSITION
THRUST LEVER IDLE
START LEVER CUTOFF



REF: DWG 50-8709

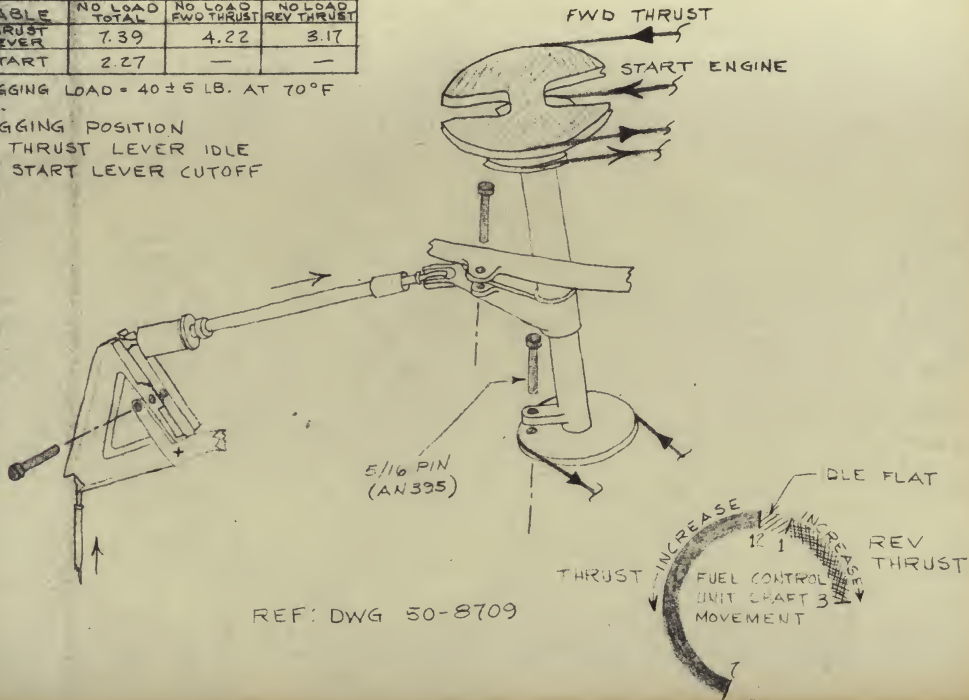
CABLE TRAVEL			
CABLE	NO LOAD	NO LOAD	NO LOAD
THRUST	TOTAL	FWD THRUST	REV THRUST
THRUST LEVER	7.39	4.22	3.17
START	2.27	—	—

RIGGING LOAD = 40 ± 5 LB. AT 70°F

RIGGING POSITION

THRUST LEVER IDLE

START LEVER CUTOFF



REF: DWG 50-8709

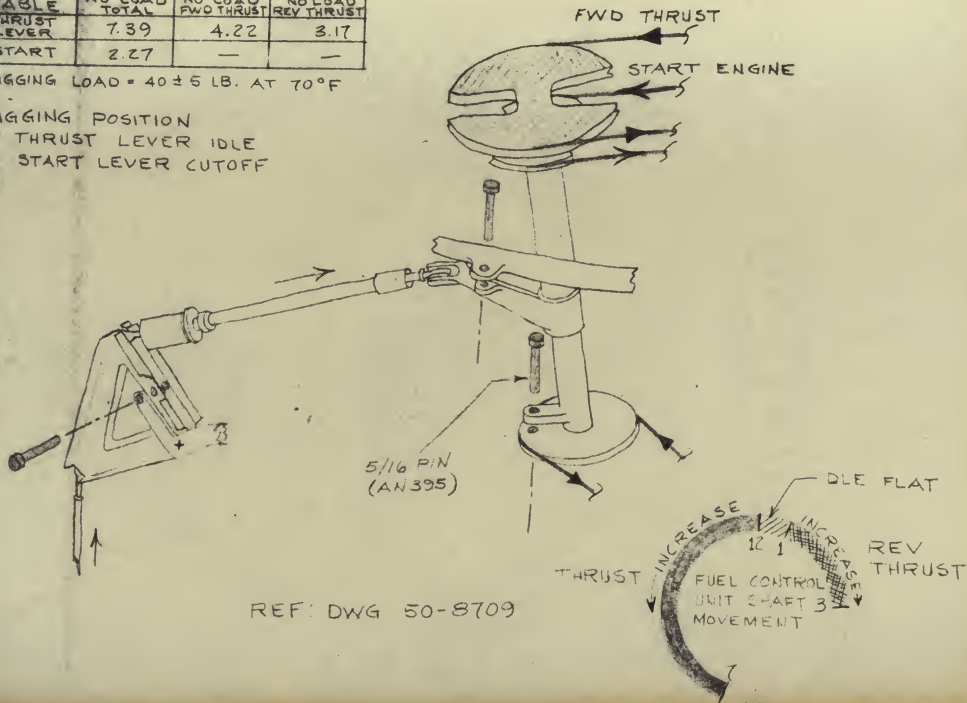
CABLE TRAVEL			
CABLE	NO LOAD TOTAL	NO LOAD FWD THRUST	NO LOAD REV THRUST
THRUST LEVER	7.39	4.22	3.17
START	2.27	—	—

RIGGING LOAD = 40 ± 5 LB. AT 70°F

RIGGING POSITION

THRUST LEVER IDLE

START LEVER CUTOFF

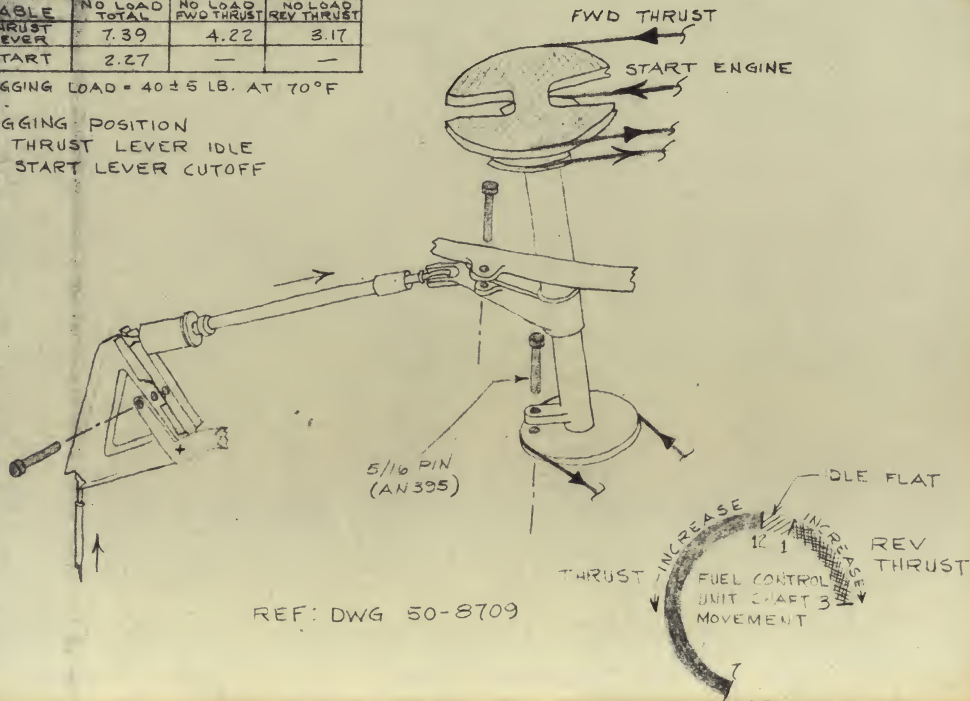


REF: DWG 50-8709

CABLE TRAVEL			
CABLE	NO LOAD TOTAL	NO LOAD FWD THRUST	NO LOAD REV THRUST
THRUST LEVER	7.39	4.22	3.17
START	2.27	—	—

RIGGING LOAD = 40 ± 5 LB. AT 70°F

RIGGING POSITION
THRUST LEVER IDLE
START LEVER CUTOFF

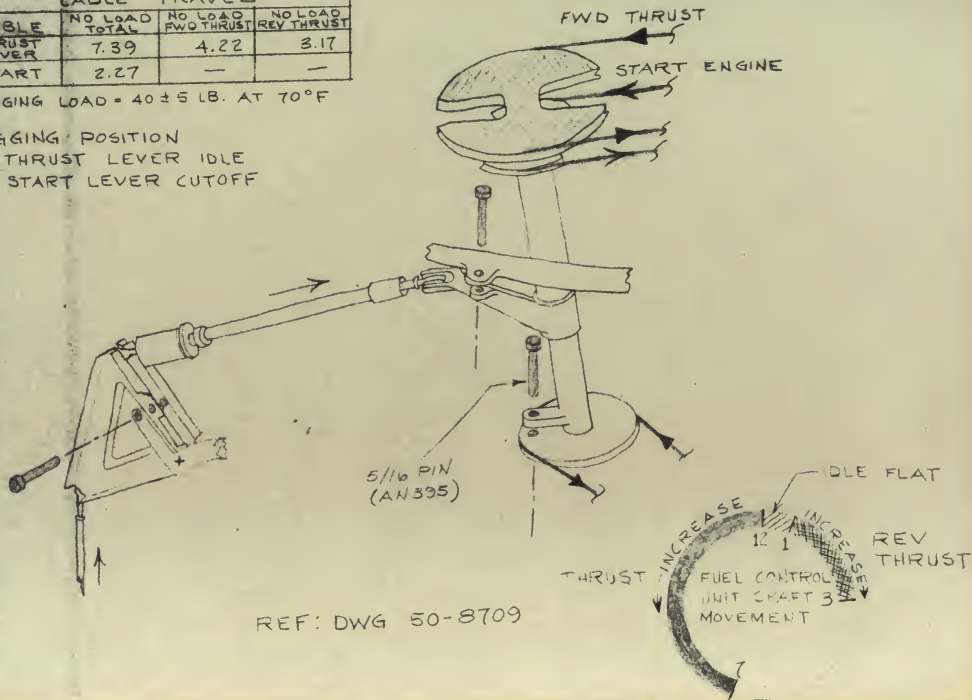


REF: DWG 50-8709

CABLE TRAVEL			
CABLE	NO LOAD TOTAL	NO LOAD FWD THRUST	NO LOAD REV THRUST
THRUST LEVER	7.39	4.22	3.17
START	2.27	—	—

RIGGING LOAD = 40 ± 5 LB. AT 70°F

RIGGING POSITION
THRUST LEVER IDLE
START LEVER CUTOFF



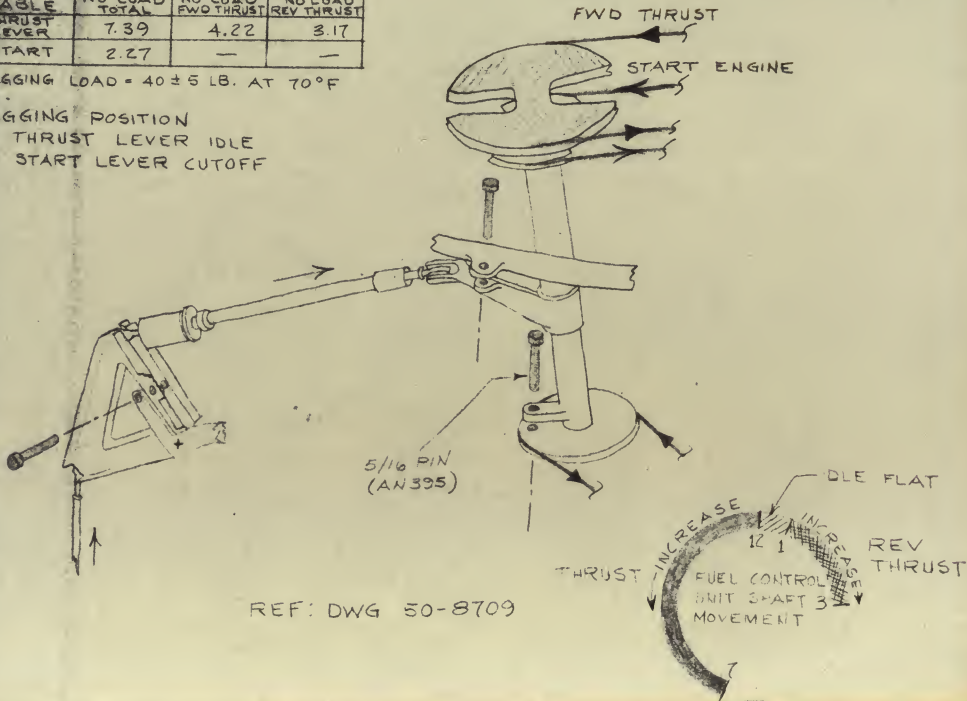
CABLE TRAVEL			
CABLE	NO LOAD TOTAL	NO LOAD FWD THRUST	NO LOAD REV THRUST
THRUST LEVER	7.39	4.22	3.17
START	2.27	—	—

RIGGING LOAD = 40 ± 5 LB. AT 70°F

RIGGING POSITION

THRUST LEVER IDLE

START LEVER CUTOFF

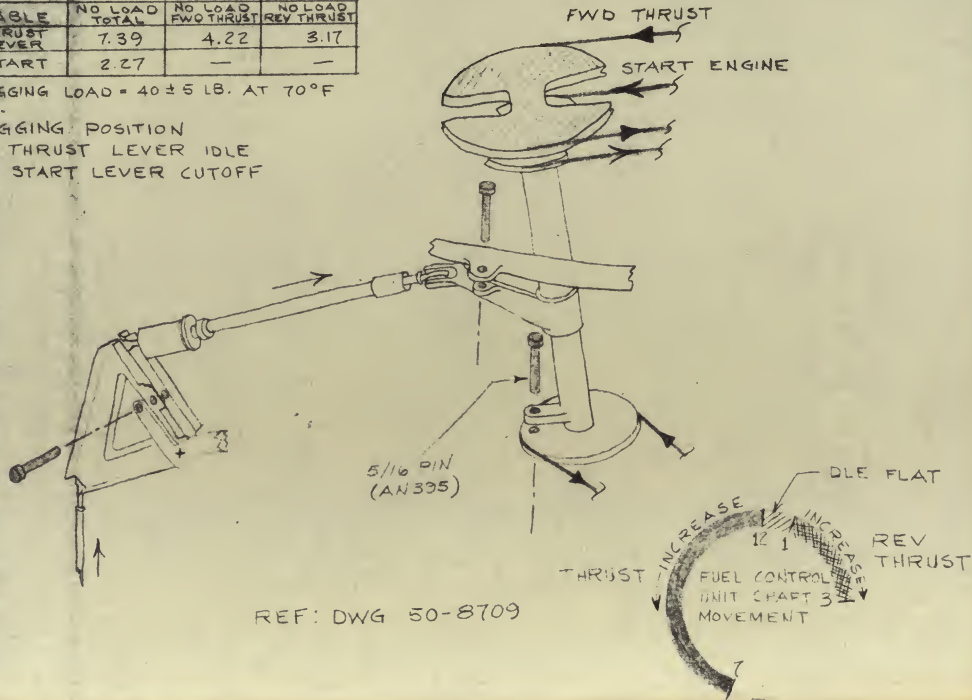


REF: DWG 50-8709

CABLE TRAVEL			
CABLE	NO LOAD TOTAL	NO LOAD FWD THRUST	NO LOAD REV THRUST
THRUST LEVER	7.39	4.22	3.17
START	2.27	—	—

RIGGING LOAD = 40 ± 5 LB. AT 70°F

RIGGING POSITION
THRUST LEVER IDLE
START LEVER CUTOFF

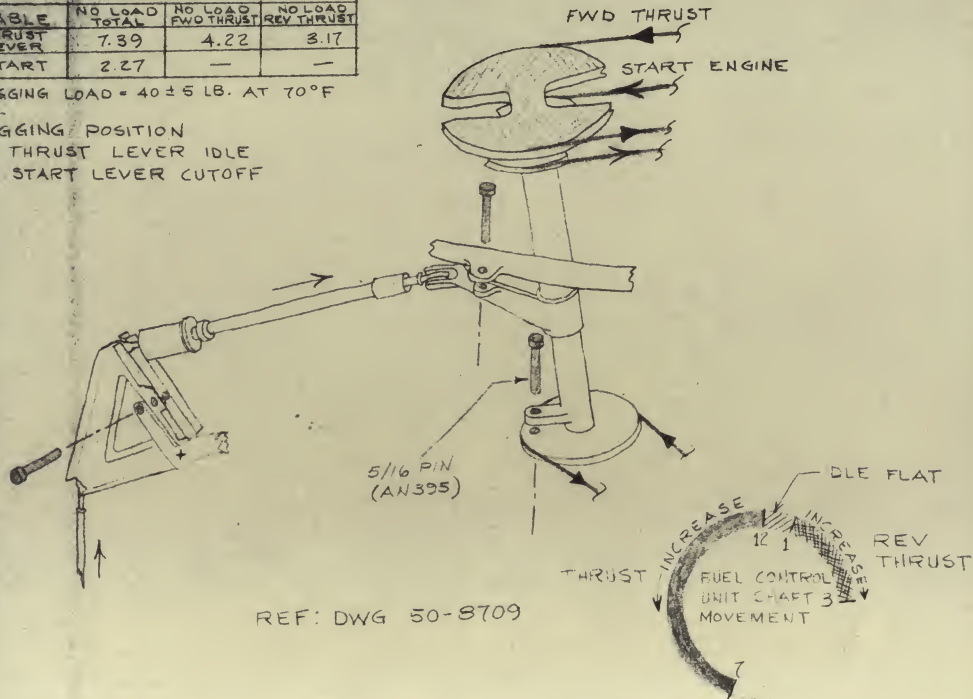


REF: DWG 50-8709

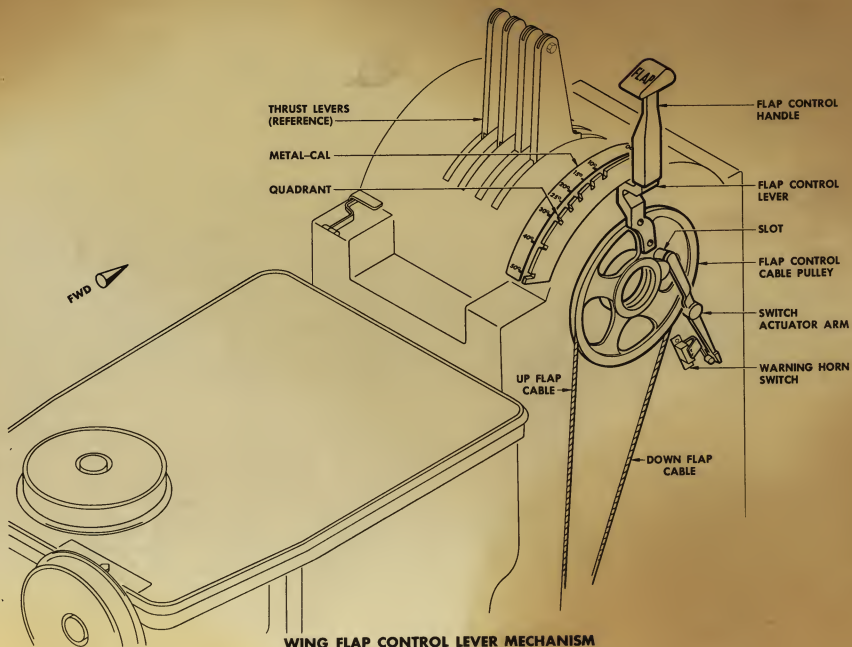
CABLE TRAVEL			
CABLE	NO LOAD TOTAL	NO LOAD FWD THRUST	NO LOAD REV THRUST
THRUST LEVER	7.39	4.22	3.17
START	2.27	—	—

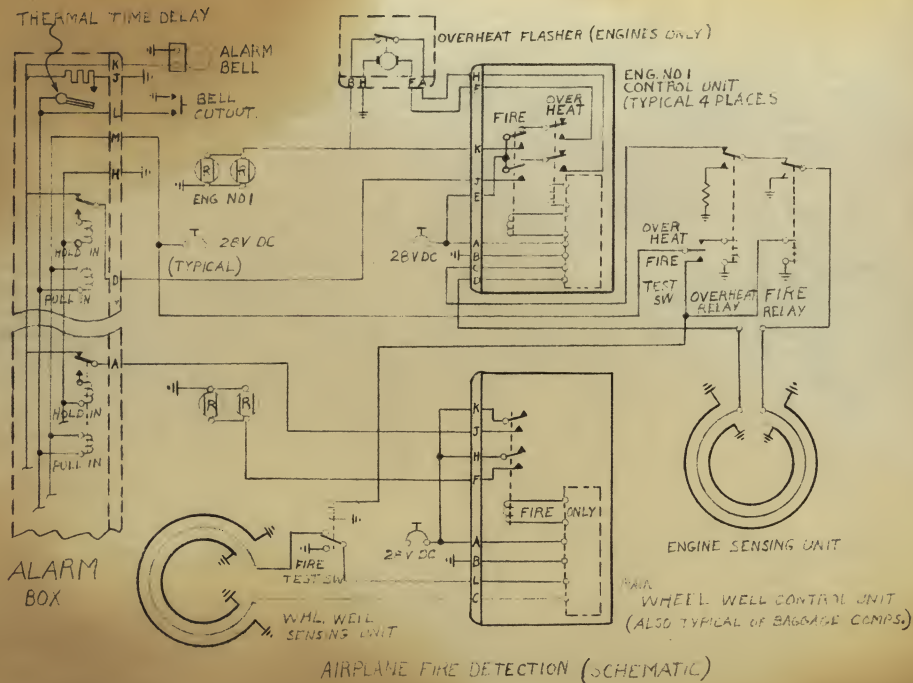
RIGGING LOAD = 40 ± 5 LB. AT 70°F

RIGGING POSITION
THRUST LEVER IDLE
START LEVER CUTOFF

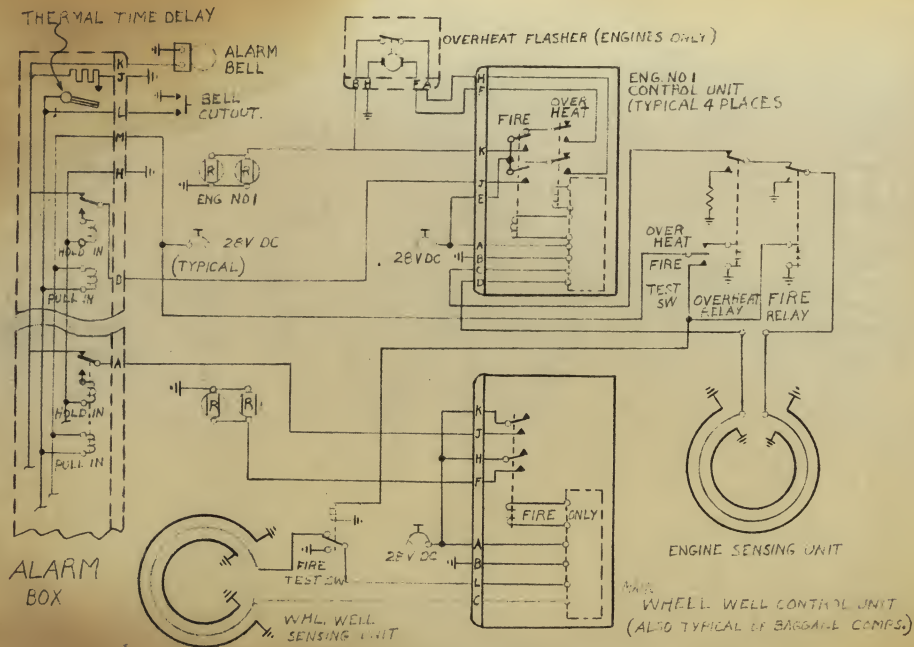


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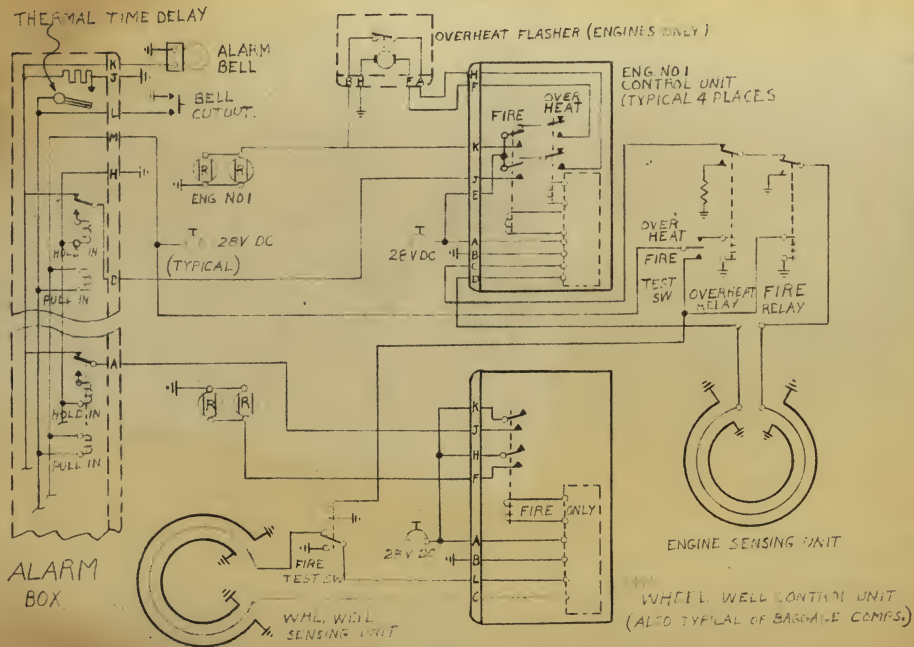




AIRPLANE FIRE DETECTION (SCHEMATIC)



AIRPLANE FIRE DETECTION (SCHEMATIC)



AIRPLANE FIRE DETECTION (SCHEMATIC)

July 12, 1957

TRANSPORT DIVISION GRAPHIC AIDS WEEKLY REPORT

707

The following new and revised transparencies were released during the week ending July 11, 1957.

NEW

121-31-8	Pilots' Instrument Panel - Center and Right Shield
121-25-14	Forward Lavatory Compartment
121-23-12	Audio Selector Panel - Microphone Switching
121-31-7	Pilots' Instrument Panel - Left
121-23-4	Essential Electronic and Radio Power Distribution
121-31-9	Pilots' Instrument Panel - Right
707-138	Page 21 - Fuel Tank Arrangement
707-138	Page 29 - Pressurization System
138-82-4	Engine Driven Water Injection Pump
123-21-8	Vapor Cycle System Installation
121-23-13	Interphone Amplifier - Telephonics 20035
121-22-4	FB-20D Autopilot Elevator Control Circuit I
121-82-3	Water Pump and Valve Details
123-28-27	Pressure Fueling Station
120-26-5	Engine Fire Extinguishing System
121-25-9	Cargo Webbing

REVISED

121-82-1	Rev C	Engine Water Injection System
121-32-14	Rev A	Main Landing Gear Actuator Schematic
121-35-1	Rev B	Oxygen System

The following Art Orders and Change Art Orders were received during the week ending July 11, 1957.

120-34-10	Bendix Flight Director System -2
120-34-11	Bendix Flight Director System -3
120-34-12	Bendix Flight Director System -4
120-34-13	Bendix Flight Director System -5
120-34-14	Bendix Flight Director System -6
120-34-15	Bendix Flight Director System -7
328-25-5	Interior Arrangement
328-8P-16	Cover Page (Front) Air France Brochure
329-8P-16	Cover Page (Front) Sabena Brochure
328-8P-17	Back Cover Page - Air France Brochure
329-8P-17	Back Cover Page - Sabena Brochure
328-6-1	Principal Dimensions-AF Brochure
329-6-1	Principal Dimensions-Sabena Brochure
328-25-5	Interior Arrangement-AF Brochure
329-25-5	Interior Arrangement-Sabena Brochure
328-25-6	Control Cabin Arrangement-AF Brochure
329-25-6	Control Cabin Arrangement-Sabena Brochure
328-51-1	Section Breakdown AF Brochure
329-51-1	Section Breakdown Sabena Brochure
138-91-1	Typical Flight Profile Sydney to Nadi (Brochure)
121-25-30	Passenger Service Unit
121-25-31	Passenger Service Unit Details

CHANGE ART ORDERS

121-24-24	Rev B	115V AC Circuit Breaker Panel No. 3(P3)
121-24-22	Rev A	28V Service and 115V AC Circuit Breaker Panel No. 1 (P1)
121-28-8	Rev A	Fuel Tank Removable Component Seals
121-24-23	Chg 1	115V AC Circuit Breaker Panel No. 2 (P2)
121-24-25	Chg 1	115V AC Circuit Breaker Panel No. 4 (P4)
121-24-27	Chg 1	Essential 28V Circuit Breaker Panel (P6)
121-24-28	Chg 1	28V AC Circuit Breaker Panel (P7)

During the week ending July 11, 1957 additional time was requested for incorporation of the following Master Changes on Graphic Aids transparencies.

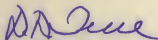
<u>MC</u>	<u>HOURS</u>
733	20
517-3	55
264-1	20
496-7	<u>215</u>
TOTAL ----	310

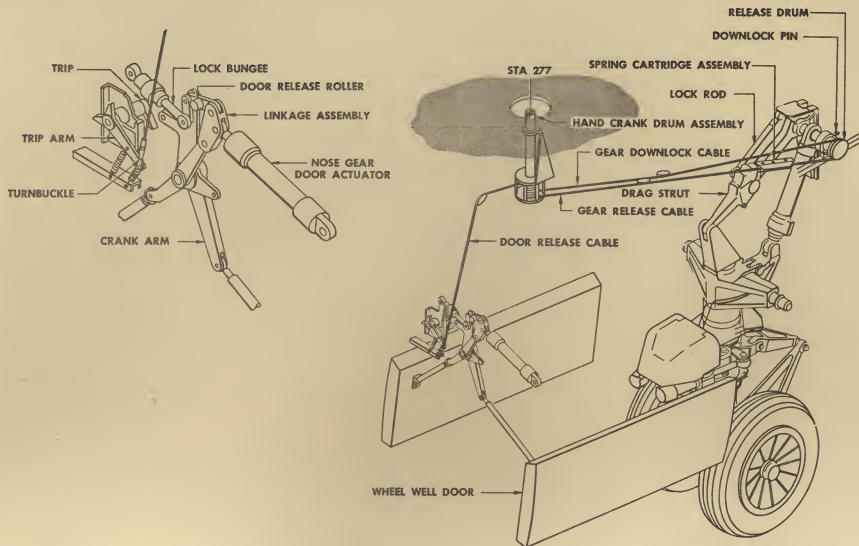
707 STATUS

Backlog Status as Follows:

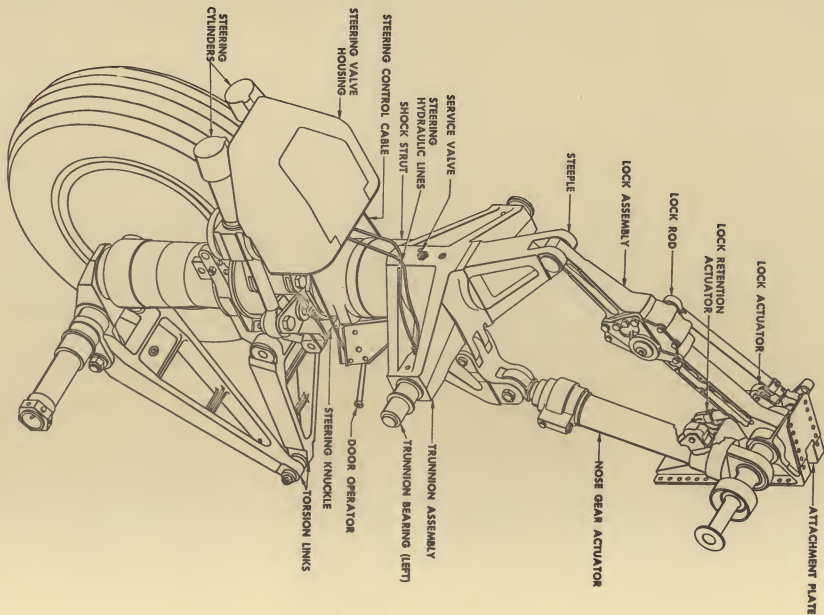
	<u>NUMBER</u>	<u>ESTIMATED HOURS TO COMPLETE</u>
Art orders unassigned	9	540
Art orders in work	70	2100
Change A.O. unassigned	1	20
Change A.O. in work	7	70
Customer A.O. unassigned	8	240
Customer A.O. in work	22	440
Customer C.A.O. in work	1	<u>10</u>

Total Hours - 3420

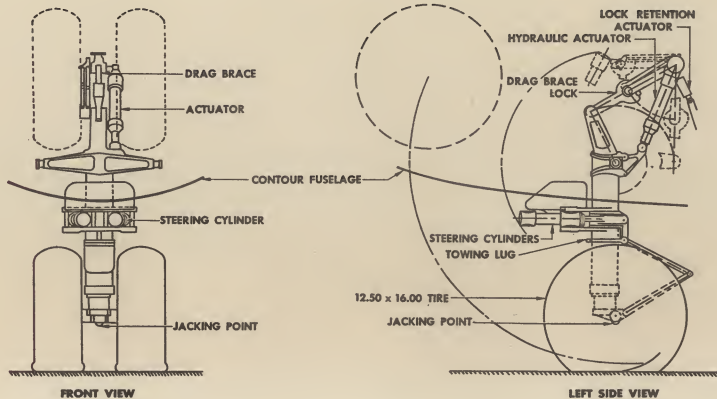

D. D. True
Graphic Aids Group



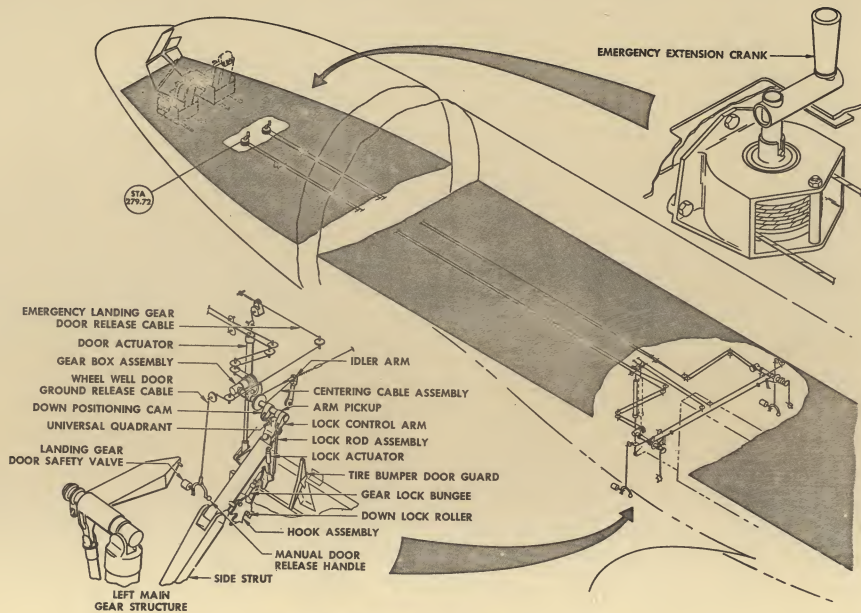
EMERGENCY NOSE GEAR AND DOOR RELEASE



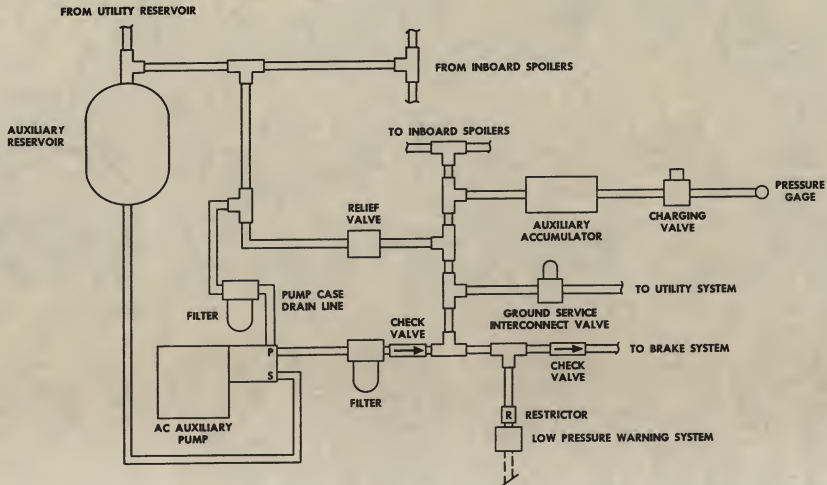
NOSE GEAR STRUCTURE



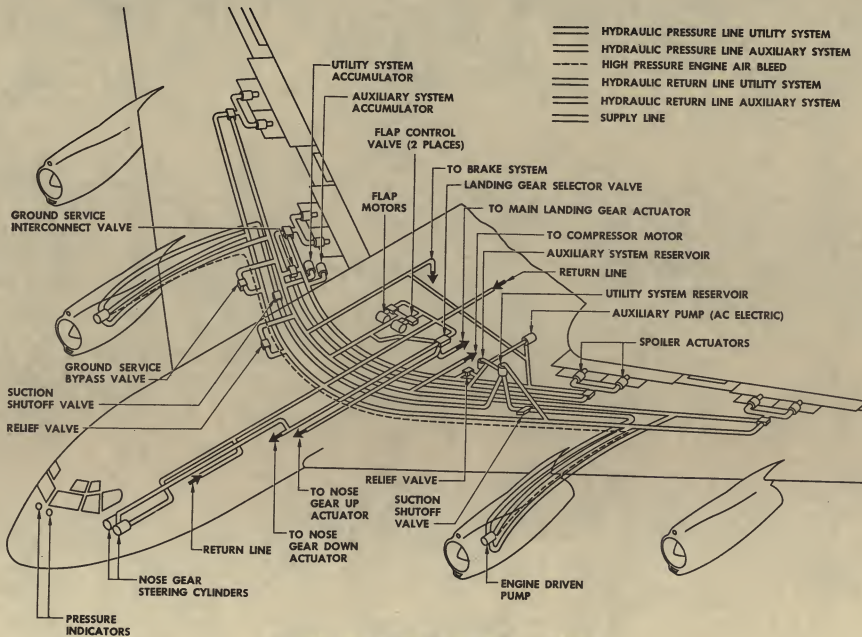
NOSE GEAR



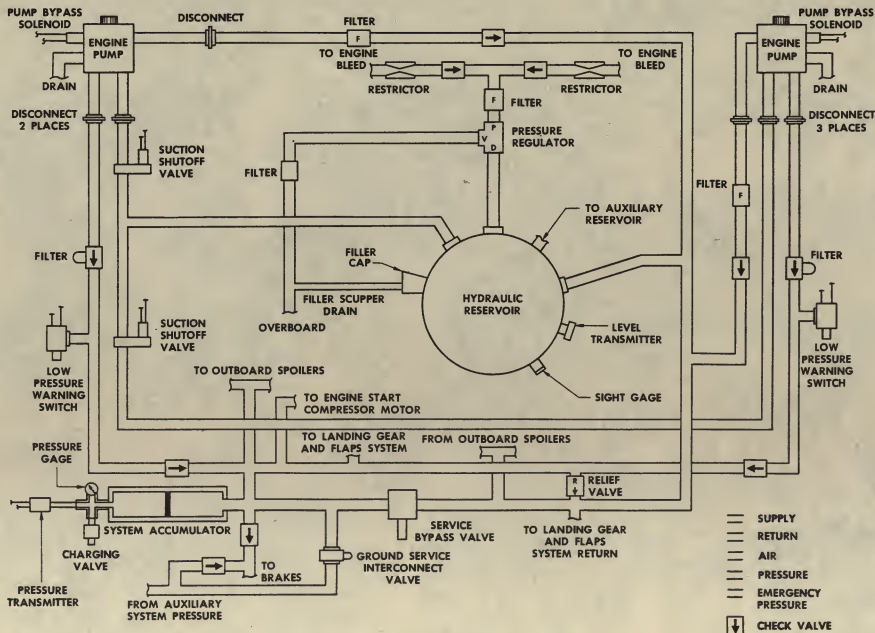
MAIN GEAR EMERGENCY EXTENSION SYSTEM



AUXILIARY HYDRAULIC PRESSURE SYSTEM

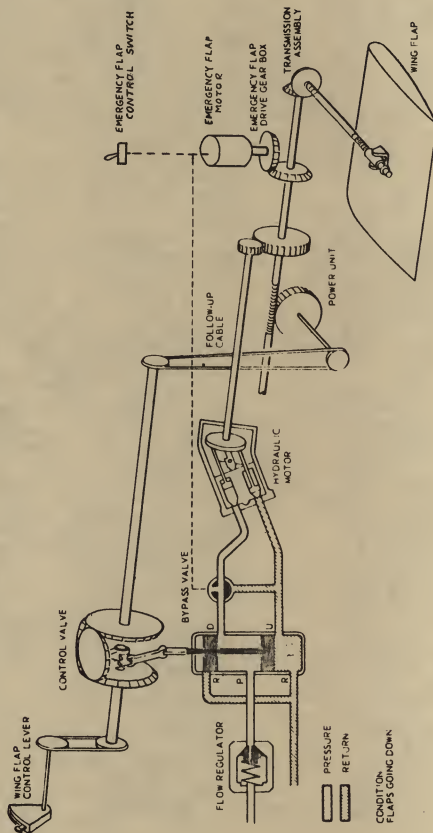


HYDRAULIC SYSTEM EQUIPMENT LOCATION

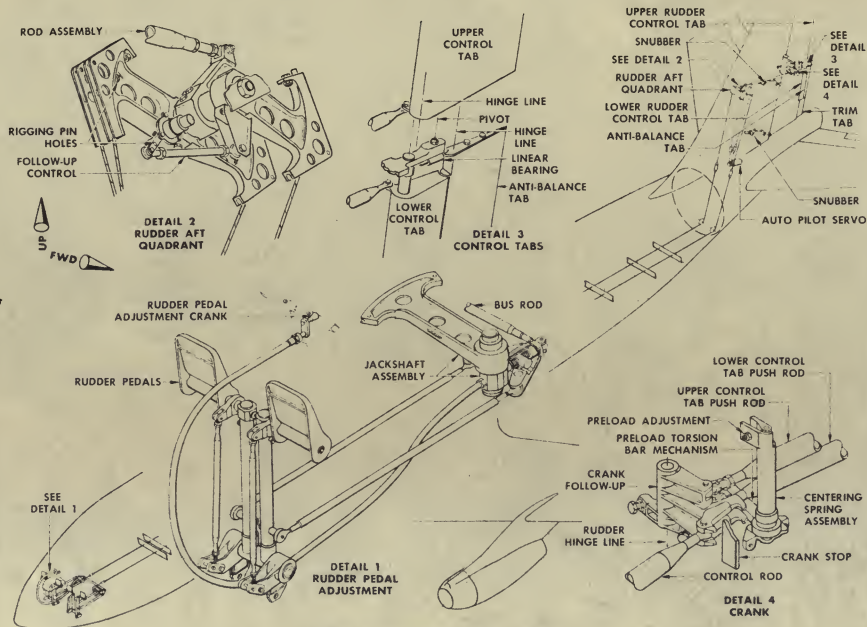


UTILITY HYDRAULIC PRESSURE SYSTEM

WING FLAP SYSTEM
Description



Wing Flap System Schematic



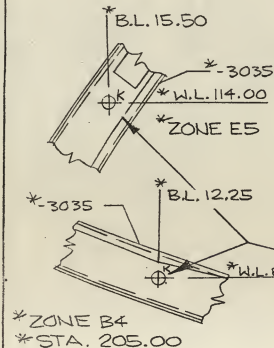
RUDDER CONTROL SYSTEM DETAILS

6-70 IT NOT PROCESS

MODEL 707	B7-30-57 WG. REC. CLK. 7-30-57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ADDN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION TO INSURE POSITIVE LOCATION OF REASON: IRREGULAR OML'S & HOLD FRAMES RELATIVE TO BOTH LONGERONS & ATTACH POINTS. (MFG. FACILITY)	ISSUE NO. FRR 10087 CHG. NO.	COWL PANEL ASSY L.H. SIDE ENGINE NACELLE DWG. TITLE ADCN Ri-3 5-85637 SHT. 100						
CHECKED DARTO	RELEASE B/P GROUP R015 4-1382 REQUESTED	 PROD. INFO.	SEC. NO. 71							
STRESS HESHT			1 THRU 199 301 THRU 1999 CHG. EFF.							
APPROVED <i>[Signature]</i>										
APPROVED <i>[Signature]</i>										
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P

ADD COORDINATING HOLES AS SHOWN BELOW:

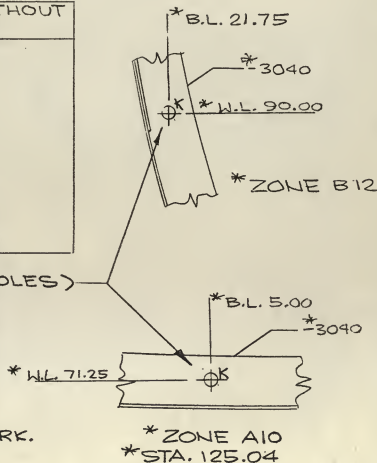
THIS CHG. INCOMPLETE WITHOUT			
ADCN	SHT	DWG.	
Ri-2	1A	5-85637	
Ri-1	3A		
Ri-2	3A		
Ri-2	4A		
Ri-3	4A		
Ri-4	4A		
Ri-1	100		
Ri-2	100		
		5-85637	



*ADCN REF.

EXISTING PARTS & ASSY'S MAY BE USED WITHOUT REWORK.

FOR KC-135 SEE ADCN Ri-11 & 5 ON 5-85637



AIRP. SEC.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COUNN IND	DWG SHEET NO.
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ITEM OR COMPONENT

MAIN LANDING GEAR LH AND RH

DETAIL LUBRICATION LIST FOR 707 AIRPLANES

BOEING AIRPLANE COMPANY
SEATTLE 14, WASHINGTONPAGE NO. 1 OF PAGES.MFGRS. NO. D 6-1539DATE LAST REVISION DATE APPROVED

ITEM NO.	LUBRICATION POINT	BEARING TYPE	LUBRICANT	METHOD OF APPLICATION	NO. OF APPLICATION POINTS	LUBRICATION INTERVAL	REMARKS
1	Wheel Bearings	R	MIL-L-3545	Hand Pack	8	At tire change	Clean axle and bearing of old grease. Repack bearing and grease bearing cup only. Apply no grease to hub. (Drawing 50-5530)
2	Exposed inner cylinder piston surface	SS	MIL-O-5606	Noted	-	Post Flight	Wipe clean and apply a light film of oil.
3	Truck Pivot	P	MIL-G-3278	Gun	2	#1	1 zerk fitting on each side of inner cyl. fork (Drawing 50-9710)
4	Torsion Links	P	MIL-G-3278	Gun	6	#1	3 zerk fittings on each link (Upper and lower) (Drawing 50-9723)
5	Centering Cylinder Assy	P	MIL-G-3278	Gun	2	#1	Zerk fitting in end of each attaching bolt. (Drawing 50-9760)
6	Snubber Assembly	P	MIL-G-3278	Gun	2	#1	Zerk fitting in end of each attaching bolt. (Drawing 50-9760)
7	Brake Collar	P	MIL-G-3278	Gun	4	#1	2 zerk fittings in each end of collar (Drawing 90-8658)

ITEM OR COMPONENT		DETAIL LUBRICATION LIST FOR 707 AIRPLANES					PAGE NO. <u>1</u> OF <u> </u> PAGES
MAIN LANDING GEAR LH AND RH		BOEING AIRPLANE COMPANY SEATTLE 14, WASHINGTON					MFGRS. NO. D <u>6-1539</u>
							DATE LAST REVISION <u> </u>
							DATE APPROVED <u> </u>
ITEM NO.	LUBRICATION POINT	BEARING TYPE	LUBRICANT	METHOD OF APPLICATION	NO. OF APPLICATION POINTS	LUBRICATION INTERVAL	REMARKS
22	Crank Assembly Lock	P	MIL-G-3278	Gun	1	#1	Zerk Fitting (Drawing 9-63252)
23	Link Assembly, Crank to hook connecting link	ND	MIL-G-3278	Gun	2	#1	Flush Type (Drawing 6-73382)
24	Hook Assembly Support structure	P	MIL-G-3278	Gun	2	#1	Zerk Fitting (Drawing 5-85682) for lubrication at hook pivot point.
25	Bungee, lock	SS	MIL-G-3278	Gun	2	#1	Flush Type (Drawing 66-4092)

ITEM OR COMPONENT		DETAIL LUBRICATION LIST FOR 707 AIRPLANES					PAGE NO. <u>7</u> OF <u> </u> PAGES
NOSE LANDING GEAR		BOEING AIRPLANE COMPANY SEATTLE 14, WASHINGTON					MFGRS. NO. <u>D6-1539</u> DATE LAST REVISION <u> </u> DATE APPROVED <u> </u>
ITEM NO.	LUBRICATION POINT	BEARING TYPE	LUBRICANT	METHOD OF APPLICATION	NO. OF APPLICATION POINTS	LUBRICATION INTERVAL	REMARKS
1	Wheel Bearings	R	MIL-G-2545	Hand Pack	4	At tire change	Clean axle and bearing of old grease. Repack bearing and grease bearing cup surface only. Apply no grease to hub. (50-5531).
2	Exposed inner cylinder piston surface	SS	MIL-O-5606	Noted	-	Post Flight	Wipe clean and apply a light film of oil. Drawing (5-83069 Sht. 1A)
3	Lock Assembly (Drag brace & lock rod)	P	MIL-G-3278	Gun	6	#1	5 exposed flush type fittings and 1 flush type inside of drag brace accessible only by removing plug in side plate (Drawing 65-4829).
4	Oleo to drag brace	P	MIL-G-3278	Gun	2	#1	2 zerk fittings in steeple of outer cylinder (Dwg. 65-4854).
5	Torsion Links	P	MIL-G-3278	Gun	4	#1	3 zerk fittings on lower link and 1 on upper link. (Drawing 5-72334).
6	Connecting Link towing and steering, nose gear	P	MIL-G-3278	Gun	1	#1	Flush fitting (Drawing 90-5288)

ITEM OR COMPONENT CONTROL SYSTEM AILERON - OUTED		DETAIL LUBRICATION LIST FOR 707 AIRPLANES BOEING AIRPLANE COMPANY SEATTLE 14, WASHINGTON					PAGE NO. <u>25</u> OF <u> </u> PAGES MFGRS. NO. <u>D6-1539</u> DATE LAST REVISION <u> </u> DATE APPROVED <u> </u>
ITEM NO.	LUBRICATION POINT	BEARING TYPE	LUBRICANT	METHOD OF APPLICATION	NO. OF APPLICATION POINTS	LUBRICATION INTERVAL	REMARKS
11	Bevel Gear Shaft Brg.	B	MIL-O-5606	Oil Bath	1 LH 1 RH	Overhaul	Used in oil filled box. (Dwg. 5-87199)
12	Bevel Gear Brg.	BD	MIL-O-5606	Oil Bath	1 LH 1 RH	Overhaul	Used in oil filled box. (Dwg. 5-87199)
13	Lockout Mech. Gearbox	SS	MIL-O-5606	Can	1 LH 1 RH	Overhaul	Maintain oil level at fill plug. (Dwg. 5-87199)
14	Torque Tube Splined Joints	SS	MIL-G-3278	Hand	2 LH 2 RH	Overhaul	Clean & lubricate all splined joints. Wipe off excess. (Dwg. 9-49684)
15	Lockout Mech. U-Joints	--	MIL-L-7218	Hand	1 LH 1 RH	Overhaul	Apply a light coat of lubricant (Dwg. 6-72441)
16	Bevel Gear Splined Joints	SS	MIL-G-3278	Hand	1 LH 1 RH	Overhaul	Clean & lubricate all splined joints. Wipe off excess. (Dwg. 5-87199)
17	Brg. Retainer	--	MIL-G-4343	Hand	1 LH 1 RH	Overhaul	Light coat prior to instl. (Dwg. 6-72442)
18	Seal Plate	--	MIL-G-4343	Hand	1 LH 1 RH	Overhaul	Light coat prior to instl. (Dwg. 9-61767)
19	Cables, Pullays & Pres. Seals						Refer to Page 11

ITEM OR COMPONENT CONTROL SYSTEM RUDDER TRIM (50-3706)		DETAIL LUBRICATION LIST FOR 707 AIRPLANES BOEING AIRPLANE COMPANY SEATTLE 14, WASHINGTON					PAGE NO. <u>34</u> OF <u> </u> PAGES MFGRS. NO. <u>D 6-1539</u> DATE LAST REVISION <u> </u> DATE APPROVED <u> </u>
ITEM NO.	LUBRICATION POINT	BEARING TYPE	LUBRICANT	METHOD OF APPLICATION	NO. OF APPLICATION POINTS	LUBRICATION INTERVAL	REMARKS
1	Brake Mechanism	-	MIL-G-3278	Hand	1	Overhaul	Disassemble, wipe clean & grease plate teeth ratchet plunger, spring & saturate felt washer with grease. Avoid getting lubri. on brake surfaces. (Dwg. 9-48057.)
2	Act. Support Brgs. (In Hsng.)	B	MIL-G-3278	Prepacked	2	None	Prepacked Brg. (Dwg. 50-6294.)
3	Cable Drum Brg	B	MIL-G-3278	Prepacked	2	None	Prepacked Brg. (Dwg. 60-2873.)
4	Brake Plate Brg.	B	MIL-G-3278	Prepacked	3	None	Prepacked Brg. (Dwg. 50-6294.)
5	Rudder Trim Rod End Brg.	BD	MIL-G-3278	Prepacked	3	None	Prepacked Brg. (Dwg. 9-67646-6, 9-48057.)
6	Linkage Arm Brgs.	B	MIL-G-3278	Prepacked	2	None	Prepacked Brg. (Dwg. 50-6311 on 5-97693.)
7	Actator Screw	BS	MIL-G-3278	Hand	1	#4	Wipe clean apply light coat of grease, operate one cycle & wipe off excess (Dwg. 50-6294.)
8	Cables, Pulleys & Press. Seals						Refer to Page 11.
9	Tab Damper Crank Brg.	B	MIL-G-3278	Prepacked	2	None	Prepacked Brg. (Dwg. 69-4752.)

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ITEM OR COMPONENT CONTROL SYSTEM SPOILER - INBOARD (50-8701)		DETAIL LUBRICATION LIST FOR 707 AIRPLANES BOEING AIRPLANE COMPANY SEATTLE 14, WASHINGTON					PAGE NO. <u>39</u> OF <u>44</u> PAGES MFGRS. NO. D <u>6-1539</u> DATE LAST REVISION <u>1/1/58</u> DATE APPROVED _____
ITEM NO.	LUBRICATION POINT	BEARING TYPE	LUBRICANT	METHOD OF APPLICATION	NO. OF APPLICATION POINTS	LUBRICATION INTERVAL	REMARKS
1	Follow-up Crank Brgs	B	MIL-G-3278	Packed	2 LH 2 RH	None	Packed Brg. (Dwg. 5-97095, 60-2739).
2	Differential Support Arm Brgs.	B	MIL-G-3278	Packed	4 LH 4 RH	None	Packed Brg. (Dwg. 5-97628).
3	Spring Cartridge Rod End Brg.	BD	MIL-G-3278	Packed	2 LH 2 RH	None	Packed Brg. (Dwg. 90-2906).
4	Spring Cartidge	SS	MIL-G-3278	Hand	1 LH 1 RH	Overhaul	Disassemble, wipe clean and grease control rod & ID of casing (Dwg. 90-2906).
5	Valve Crank Arm Brg	B	MIL-G-3278	Packed	3 LH 3 RH	None	Packed Brg. (Dwg. 90-1512.)
6	Valve Spring Swivel Bushing	SS	MIL-L-7870	Can	1 LH 1 RH	#4	Apply few drops (Dwg. 30-3551).
7	Linkage Rod End Brg	BD	MIL-G-3278	Packed	8 LH 8 RH	None	Packed Brgs. (Dwg. 5-98321, 5-97095, 5-98319.)
8	Cables, Pulleys & Pressure Seals						Refer to Page 11.
R 9	Control Valve Inbd	B	MIL-G-3278	Packed	2 LH 2 RH	None	Packed Brgs. (Dwg. 50-6875.)
		B	MIL-O-5606 or Skydrol "500" (as Applicable)	Can	1 LH 1 RH	Overhaul	With slide in any position, fill gear box to level .75 ± .10 in. below surface of vent plug boss. Refill if level drops 1.25 in. below boss. (Dwg. 65-7018, 50-6875, 5-98319).

ITEM OR COMPONENT
CONTROL SYSTEM SPOILER - OUTED
(50-8701)

DETAIL LUBRICATION LIST FOR 707 AIRPLANES

BOEING AIRPLANE COMPANY
SEATTLE 14, WASHINGTON

PAGE NO. 40 OF 40 PAGES
MFGRS. NO. D 6-1539
DATE LAST REVISION 11-18-57
DATE APPROVED

ITEM NO.	LUBRICATION POINT	BEARING TYPE	LUBRICANT	METHOD OF APPLICATION	NO. OF APPLICATION POINTS	LUBRICATION INTERVAL	REMARKS
1	Spring Cartridge Rod End Brg.	BD	MIL-G-3278	Prepacked	2 LH 2 RH	None	Prepacked Brgs. (Dwg. 90-2906).
2	Spring Cartridge	SS	MIL-G-3278	Hand	1 LH 1 RH	Overhaul	Disassemble, wipe clean & grease control rod and ID of casing (Dwg. 90-2906).
3	Valve Crank Arm Brgs	B	MIL-G-3278	Prepacked	3 LH 3 RH	None	Prepacked Brgs. (Dwg. 90-1512, 5-98386).
4	Valve Spring Swivel Brg.	SS	MIL-L-7870	Can	1 LH 1 RH	#4	Apply few drops (Dwg. 30-3551).
5	Diff. Support Arm Brgs.	B	MIL-G-3278	Prepacked	4 LH 4 RH	None	Prepacked Brgs. (Dwg. 6-84607, 5-98304).
6	Linkage Rod End Brgs	BD	MIL-G-3278	Prepacked	9 LH 9 RH	None	Prepacked Brgs. (Dwg. 50-1514, 5-98304).
7	Idler Arm Brgs.	B	MIL-G-3278	Prepacked	2 LH 2 RH	None	Prepacked Brgs. (Dwg. 9-67067).
8	Follow-up Arm Brgs.	B	MIL-G-3278	Prepacked	2 LH 2 RH	None	Prepacked Brgs. (Dwg. 9-67511, 50-1514).
9	Cables, Pulleys & Pressure Seals						Refer to Page 11.
R 10	Control Valve Outbd	B	MIL-O-5606 or Skydrol "500" (As Applicable)	Can	1 LH 1 RH	Overhaul	With slide in any position, fill gear box to level .75 + .10 in. below surface of vent plug boss. Refill if level drops 1.25 in. below boss. (Dwg. 50-6875, 65-7018, 5-98386).
		B	MIL-G-3278	Prepacked	2 LH 2 RH	None	

ITEM OR COMPONENT
ENGINE CONTROL SYSTEM
(50-8709)

DETAIL LUBRICATION LIST FOR 707 AIRPLANES

BOEING AIRPLANE COMPANY
SEATTLE 14, WASHINGTON

PAGE NO. 12 OF 12 PAGES
MFGRS. NO. 6-1539
DATE LAST REVISION
DATE APPROVED

ITEM NO.	LUBRICATION POINT	BEARING TYPE	LUBRICANT	METHOD OF APPLICATION	NO. OF APPLICATION POINTS	LUBRICATION INTERVAL	REMARKS
1	Engine Start Shaft Brgs.	B	MIL-G-3278	Prepacked	8 (2/eng.)	None	Prepacked Brgs. (Dwg. 65-2318, 65-2445).
2	Eng. Throttle Control Shaft Brgs.	B	MIL-G-3278	Prepacked	8 (2/eng.)	None	Prepacked Brgs. (Dwg. 65-2318, 65-2445.)
3	Fuel Shutoff Valve Rod End Brgs.	BD	MIL-G-3278	Prepacked	8 (2/eng.)	None	Prepacked Brgs. (Dwg. 65-6416.)
4	Eng. Start Control Rod End Brgs.	BD	MIL-G-3278	Prepacked	16 (4/eng.)	None	Prepacked Brgs. (Dwg. 69-2944, 60-2943, 69-2942.)
5	Switch Reset Cam Brg.	B	MIL-G-3278	Prepacked		None	Prepacked Brgs. (Dwg. 65-2173).
6	Switch Reset Cam	SS	Dry Film	-		None	No lubrication necessary. (Dwg. 65-2173)
7	Thrust Reverser Control Shaft Brgs.	B	MIL-G-3545	Hand	8 (2/eng.)	None	Remove seals, clean & repack (Dwg. 65-2942, 65-2867.)
8	Eng. Start Control Rod Brg.	BD	MIL-G-3278	Prepacked	4	None	Prepacked Brgs. (Dwg. 69-2943.)
9	Eng. Throttle Control Drum Brg.	B	MIL-G-3278	Prepacked	4	None	Prepacked Brgs. (Dwg. 65-2868.)
10	Eng. Throttle Control Pulley Brgs.	B	MIL-G-3278	Prepacked	8	None	Prepacked Brgs. (Dwg. 69-2594.)

ITEM OR COMPONENT CONTROL SYSTEM WING FLAP		DETAIL LUBRICATION LIST FOR 707 AIRPLANES BOEING AIRPLANE COMPANY SEATTLE 14, WASHINGTON				PAGE NO. <u>16</u> OF <u> </u> PAGES MFGRS. NO. <u>D6-1539</u> DATE LAST REVISION <u>11-18-57</u> DATE APPROVED <u>1/7/58</u>	
ITEM NO.	LUBRICATION POINT	BEARING TYPE	LUBRICANT	METHOD OF APPLICATION	NO. OF APPLICATION POINTS	LUBRICATION INTERVAL	REMARKS
1	Valve Support Brgs	B	MIL-G-3278	Prepacked	2 LH 2 RH	None	Prepacked Brgs. (Dwg. 5-97267.)
2	Cable Drum Crank Brgs	B	MIL-G-3278	Prepacked	2 RH only	None	Prepacked Brgs (Dwg. 5-9587h on 65-6889).
3	Linkage Rod End Brgs	BD	MIL-G-3278	Prepacked	4	None	Prepacked Brgs. (Dwg. 5-97267.)
4	Flap Position Transmitter Arm Brg.	B	MIL-G-3278	Prepacked	1 LH only	None	Prepacked Brg. (Dwg. 66-3515 on 5-97267).
5	Cable Pulleys & Pressure Seals						Refer to page 11.
R 6	Flap Control Valves	B	MIL-O-5606 or Skydrol 500 (As Applicable)	Can	2	overhaul	With slide in any position, fill gear box to level .75 ± .10 in. below surface of vent plug boss. Refill if level drops 1.25 in. below boss. (Dwg. 50-6875, 5-97267).

ITEM OR COMPONENT
CONTROL SYSTEM FLAP DRIVE
(50-8708)

DETAIL LUBRICATION LIST FOR 707 AIRPLANES

BOEING AIRPLANE COMPANY
SEATTLE 14, WASHINGTON

PAGE NO. 17 OF PAGES
MFGRS. NO. D6-1539
DATE LAST REVISION 11-18-67
DATE APPROVED

ITEM NO.	LUBRICATION POINT	BEARING TYPE	LUBRICANT	METHOD OF APPLICATION	NO. OF APPLICATION POINTS	LUBRICATION INTERVAL	REMARKS
R 1	Power Unit Brgs	B	MIL-O-5606	Oil Bath	6/unit	Overhaul	Used in oil filled box (1 unit LH, 1 unit RH) (Dwg. 5-88130).
R 2	Power Unit	SS	MIL-O-5606	Oil Bath	1 LH 1 RH	#4	Check oil level and fill to oil level limits indicated. (Dwg. 5-88130).
3	Ball Screw Transmission	SS	MIL-O-5606	Oil Bath	5 LH 5 RH	#4	Maintain oil level with fill plug. (Dwg. 5-84049).
4	Ball Screw Transmission Brgs	B	MIL-O-5606	Oil Bath	5/unit		Used in oil filled box (1 unit LH 1 unit RH) (Dwg. 5-84049.)
5	Ball Screw	SS	MIL-L-7870	Brush	5 LH 5 RH	#4	Wipe clean, apply light film of oil, operate one cycle and wipe off excess (Dwg. 5-84049).
6	Fillet Flap Trans. Support Bushings	P	MIL-G-3278	Gun	2 LH 2 RH	#4	Flush Fitting (1 fitting per bushing) (Dwg. 5-97896).
7	Fillet Flap Ball Screw Trunnion Supp. Bushings	P	MIL-G-3278	Gun	2 LH 2 RH	#4	Flush fitting (1 fitting per bushing) (Dwg. 5-84049).
8	Flap Transm. Supp. Bushings	P	MIL-G-3278	Gun	8 LH 8 RH	#4	Flush fitting (1 fitting per bushing) (Dwg. 5-84049).

ITEM OR COMPONENT CONTROL SYSTEM FLAP DRIVE (50-8708)		DETAIL LUBRICATION LIST FOR 707 AIRPLANES BOEING AIRPLANE COMPANY SEATTLE 14, WASHINGTON					PAGE NO. <u>48</u> OF <u> </u> PAGES MFGRS. NO. <u>D 6-1539</u> DATE LAST REVISION <u> </u> DATE APPROVED <u> </u>
ITEM NO.	LUBRICATION POINT	BEARING TYPE	LUBRICANT	METHOD OF APPLICATION	NO. OF APPLICATION POINTS	LUBRICATION INTERVAL	REMARKS
9	Flap ball screw trunnion support bushings	P	MIL-G-3278	Gun	8 LH 8 RH	#4	Flush Fitting (Dwg. 5-84049).
10	Fillet Flap takeoff gearbox brgs.	B	MIL-O-5606	Oil Bath	6/box	#4	Used in oil filled box (2 gear boxes)(Dwg. 5-96770 on 5-96771).
11	Fillet Flap T.O. Gearbox	SS	MIL-O-5606	Oil Bath	1 LH 1 RH	#4	Check to see that oil is level with fill plug.(Dwg. 5-96770 on 5-96771.)
12	Flap Angle Gearbox BRGS.	B	MIL-O-5606	Oil Bath	4/box	#4	Used in oil filled box (2 gear boxes)(Dwg. 5-96771).
13	Flap Angle Gearbox	SS	MIL-O-5606	Oil Bath	1 LH 1 RH	#4	Check to see that oil is level with fill plug. (Dwg. 5-96771).
14	Double Angle Fillet Flap Gearbox Brgs.	B	MIL-O-5606	Oil Bath	8/box	#4	Used in oil filled box (2 gear-boxes)(Dwg. 5-97896.)
15	Double Angle Fillet Flap Gearbox	SS	MIL-O-5606	Oil Bath	8/box	#4	Check to see that oil is level with fill plug(Dwg. 5-97896).
16	Outbd Torque Tube Support Brgs. (W.S. 615) (W.S. 360)	B	MIL-G-3278	Prepacked	6 LH 6 RH	None	Prepacked Brgs. (Dwg. 50-8708).
17	Offset Gearbox Brgs	B	MIL-O-5606	Oil Bath	5/Box	#4	Used in oil filled box (2 gear boxes)(Dwg. 5-84048).

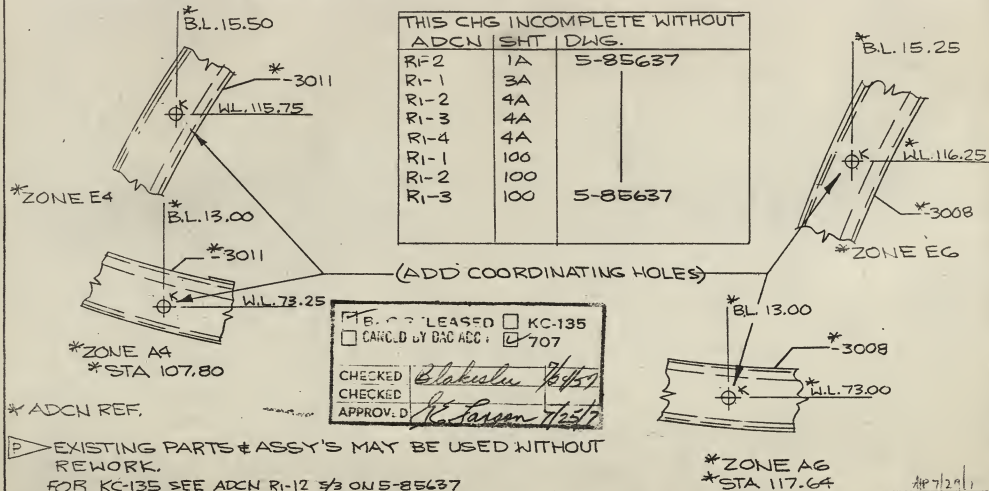
ITEM OR COMPONENT CONTROL SYSTEM FLAP DRIVE (50-8708)		DETAIL LUBRICATION LIST FOR 707 AIRPLANES BOEING AIRPLANE COMPANY SEATTLE 14, WASHINGTON				PAGE NO. <u>49</u> OF <u> </u> PAGES MFGRS. NO. <u>6-1539</u> DATE LAST REVISION <u> </u> DATE APPROVED <u> </u>	
ITEM NO.	LUBRICATION POINT	BEARING TYPE	LUBRICANT	METHOD OF APPLICATION	NO. OF APPLICATION POINTS	LUBRICATION INTERVAL	REMARKS
18	Offset Gearbox	SS	MIL-G-5606	Oil Bath	1 LH 1 RH	#4	Check to see that oil is level with fill plug (Dwg. 5-84048).
19	Position Transmitter Brgs.	B	MIL-G-3278	Prepacked	2/unit	None	Prepacked Brgs (Dwg. 5-87819).
20	Torque Tube Splined Joints	SS	MIL-G-3278	Brush	All	#4	Clean & lubricate all splined joints. Wipe off excess (Dwg. 50-8708).
21	Outbd Torque Tube Support Brgs. (W.S. 615 & 360)	RD	MIL-G-3278	Gun	6 LH 6 RH	#4	Flush Fittings (Dwg. 5-73142, 5-73143).
22	Inbd. Torque Tube Support Brgs. (W.S. 252)	RD	MIL-G-3278	Gun	2 LH 2 RH	#4	Zerk Fitting (Dwg. 5-95624, on 4-5157).
23	Cables						Refer to Page 11.

ITEM OR COMPONENT ELEVATOR		DETAIL LUBRICATION LIST FOR 707 AIRPLANES					PAGE NO. 52 OF ____ PAGES MFGRS. NO. D 6-7539 DATE LAST REVISION ____ DATE APPROVED ____
ITEM NO.	LUBRICATION POINT	BEARING TYPE	LUBRICANT	METHOD OF APPLICATION	NO. OF APPLICATION POINTS	LUBRICATION INTERVAL	REMARKS
1	Typical Elevator Control Tab Hinge Brgs.	BD	MIL-G-3278	Prepacked	8	None	Prepacked Bearing (Dwg. 5-87157)
2	Elevator Control Tab Inboard Hinge Brgs.	R	MIL-G-3278	Prepacked	2	None	Prepacked Brg. (Dwg. 5-87157).
3	Elevator Control Tab Outboard Hinge Brgs.	B	MIL-G-3278	Prepacked	2	None	Prepacked Brg. (Dwg. 5-87157).
4	Typical Elevator Hinge Brgs.	RD	MIL-G-3278	Gun	10		Flush Fitting (Dwg. 6-83193).
5	Elevator Thrust Hinge (Inbd. Hinge of Elevator)	RD	MIL-G-3278	Gun	1		Zerk fitting (Dwg. 9-65805).
6	Elevator - Stab. Actuated Tab Piano Hinge	PH	Dry Film		2	None	No lubrication necessary (Dwg. 5-96311).
7	Elevator Balance Panel Piano Hinges	PH	Dry Film		10	None	No lubrication necessary. (Dwg. 5-9721h thru 5-97218).
8	Elevator Balance Panel Support Link Brgs.	R	MIL-G-3278	Prepacked	40	None	Prepacked Brgs. (Dwg. 5-9721h Thru 5-97218.)
9	Elevator Snubber Assy.	RD	MIL-G-3278	Gun	2	Overhaul	Flush Fitting (Dwg. 50-1571).

ITEM OR COMPONENT		DETAIL LUBRICATION LIST FOR 707 AIRPLANES					PAGE NO. <u>56</u> OF <u> </u> PAGES
RUDDER		BOEING AIRPLANE COMPANY SEATTLE 14, WASHINGTON					MFGRS. NO. D <u>6-1539</u>
							DATE LAST REVISION <u> </u>
							DATE APPROVED <u> </u>
ITEM NO.	LUBRICATION POINT	BEARING TYPE	LUBRICANT	METHOD OF APPLICATION	NO. OF APPLICATION POINTS	LUBRICATION INTERVAL	REMARKS
9	Support Bearing Upper End of Control Tab & Lwr End of Stability Tab (Tab Actuator Hinge)	RD	MIL-G-3278	Prepacked	2	None	Prepacked Brg. (Dwg. 5-95502 & 5-95503).
10	Stability Tab Upper Hinge Brg.	B	MIL-G-3278	Prepacked	1	None	Prepacked Brg. (Dwg. 5-95503.)
11	Stability Tab Typical Hinge Brgs.	BD	MIL-G-3278	Prepacked	2	None	Prepacked Brg. (Dwg. 5-95503.)
12	Trim Tab Pieno Hinge	PH	Dry Film		1	None	No lubrication necessary. (Dwg. 5-95501.)
13	Rudder Balance Panel Links	R	MIL-G-3278	Prepacked	20	None	Prepacked Brg. (Dwg. 65-97658)

MODEL 707		DWG. REC. CLK. 27-30-57		BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE RE: DWG. WILL BE CHANGED TO INCLUDE THIS ACTION <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION TO INSURE POSITIVE LOCATION OF REASON: IRREGULAR OML'S & HOLD FRAMES RELATIVE TO BOTH LONGERONS & ATTACH POINTS. (MFG. FACILITY)		COWL PANEL ASSY L.H. SIDE ENGINE NACELLE	
DRAFTED R. MATTESSON		RELEASE 4-1-386				DWG. TITLE	
CHECKED DARTO		R/P GROUP ROHR		ISSUE NO. PRR 10087		ADCN R-2	
STRESS HECHT		REQUESTED 4-1-386		CHG. NO.		DRAWING NO. 5-85637	
APPROVED E. Pughart		PROD. INFO.		SEC. NO. 71		SHT. 3A	
APPROVED G. H. G. G. G.				1 THRU 199			
PARTS LIST ZONE		REPLACES		301 THRU 1999		CHG. EFF.	
REQD		PART NUMBER		NOMENCLATURE		ZONE CODE	
STOCK SIZE (APPROX. NET)		MATERIAL		HEAT TREAT		FINISH	
P							

ADD COORDINATING HOLES AS SHOWN BELOW:



AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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6-20 41 NOT PROCESS

MODEL 707
 R. MATTESON DRAFTED
 CHECKED DARTON
 STRESS HECHT
 APPROVED
 APPROVED

717-31-52
 DWG. REC. CLK.
 127-8057
 RELEASE
 7-30-57
 B/P GROUP
 ROHR
 4-1386
 REQUESTED
 PROD. INFO.

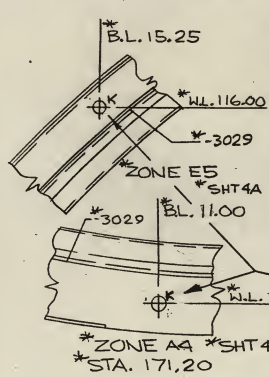
BOEING AIRPLANE COMPANY
ADVANCE DRAWING CHANGE NOTICE
 THE DRAWING WILL BE CHANGED TO INCLUDE THE ADON
☐ DEVIATION ☒ VARIATION
 TO INSURE POSITIVE LOCATION OF
 REASON: IRREGULAR OML'S & HOLD
 FRAMES RELATIVE TO BOTH LONGERONS
 & ATTACH POINTS (MFG FACILITY)

ISSUE NO.
 PRR 10087
 CHG. NO.
 71
 SEC. NO.
 1 THRU 199
 301 THRU 1999
 CHG. EFF.

COWL PANEL ASSY L.H.
 SIDE ENGINE NACELLE
 DWG. TITLE
 ADCN
 DRAWING NO.
 SHT.

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
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ADD COORDINATING HOLES AS SHOWN BELOW:

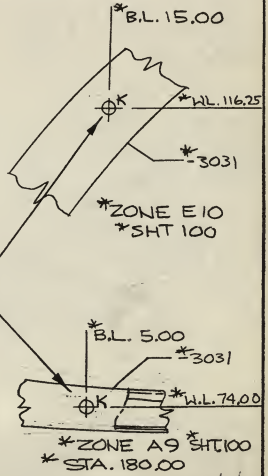


THIS CHG. INCOMPLETE WITHOUT

ADCN	SHT	DWG.
Ri-2	1A	5-85637
Ri-1	3A	
Ri-2	3A	
Ri-2	4A	
Ri-3	4A	
Ri-2	100	
Ri-3	100	5-85637

(ADD COORDINATING HOLES)

☒ BAC RELEASED ☐ KC-135
☐ CANCELLED BY BAC ABC. ☒ 707
 CHECKED
 CHECKED
 APPROVED



* ADCN REF.

EXISTING PARTS & ASSY'S MAY BE USED WITHOUT REWORK.

FOR KC-135 SEE ADCN'S RI-11 5/4 & RI-9 5/6 ON 5-85637

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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6-7-77 NOT PROCESS

MODEL 707	DWG. REC. CLK. 277-3057
DRAFTED R. MATTESSON	DATE 10-30-57
CHECKED DETTON	RELEASE 4-13-86
STRESS HECHT	B/P GROUP 4-13-86
APPROVED E. Kuehler	REQUESTED 4/14/57
APPROVED H. H. H. H.	PROD. INFO. 4/14/57

BOEING AIRPLANE COMPANY

ADVANCE DRAWING CHANGE NOTICE

THE DWG WILL BE CHANGED TO INCLUDE THIS ACTION

☐ DEVIATION ☒ VARIATION
 TO INSURE POSITIVE LOCATION OF
 REASON: IRREGULAR OML'S & HOLD
 FRAMES RELATIVE TO BOTH LONGERONS
 & AT TACH POINTS. (MFG. FACILITY)

COWL PANEL ASSY L.H. SIDE ENGINE NACELLE DWG. TITLE		
ISSUE NO. PRR 10087	ADCN R1-2	DR' YING NO. 5-85637
CHG. NO. 71		EHT. 4A
SEC. NO. 1 THRU 199		
301 THRU 1999		
CHG. EFF.		

PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
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ADD COORDINATING HOLES AS SHOWN BELOW:

THIS CHG. INCOMPLETE WITHOUT
ADCN SHT DWG

R1-2	1A	5-85637
R1-1	3A	
R1-2	3A	
R1-3	4A	
R1-4	4A	
R1-1	100	
R1-2	100	5-85637
R1-3	100	

* (ADD COORDINATING HOLES)

☒ BAC RELEASED ☐ KC-135
☐ CANCEL BY BAC ADCN. ☒ 707

CHECKED Blakelaw 4/14/57
 CHECKED Blakelaw
 APPROV. D. Blakelaw 7/25/57

▶ EXISTING PARTS & ASSY'S MAY BE USED WITHOUT REWORK.

FOR KC-135 SEE ADCN R1-9 & 4 ON 5-85637

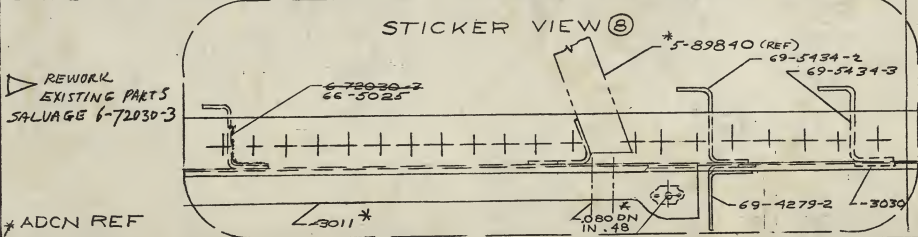
AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS			PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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1-20 6T

MODEL 707		DWG. REC. CLK. 7-7-11-57 6-7-12-57		<div style="text-align: center;"> BOEING AIRPLANE COMPANY <h1 style="margin: 0;">A</h1> <h1 style="margin: 0;">N</h1> </div> ADVANCE DRAWING CHANGE NOTICE <small>THE DWG WILL BE CHANGED TO INCLUDE THIS AD CN</small> <input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION		LOWER SPAR INSTL. DUTBD NAC STRUT DWG. TITLE		ADCN		DRAWING NO.		SHT.			
DRAFTED WILLARD DALE 7/1/57		RELEASE 7-15-57 msk				ISSUE NO. 10826		14		8-8122		1A			
CHECKED <i>[Signature]</i> 7/9		R'D GROUP G. DREW 6-7000 REQUESTED				CHG. NO. PRR		74		22		8-8122		2A	
STRESS <i>[Signature]</i> 7-9-7		REASON TO PROVIDE SUPPORT FOR THRUST REVERSER CONTROL BRACKET				SEC. NO. 1-199 & 301-1999									
APPROVED <i>[Signature]</i> 7/10/57		PROD. INFO.				CHG. EFF.									
PARTS LIST ZONE	REPLACES	3000	3030	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P			
	NEW	V	V	1	69-5434-2	STIFFENER	B5								
	NEW	V	V	1	69-5434-3	STIFFENER	C5								
		WV	WV	2	6-72030-3	STIFFENER ANGLE	B8								
	6-72030-3	V	V	1	66-5025	STIFFENER	AG								
	NEW	V	V	1	-3030	DOUBLER	C5	.040 x .85 x 4.50	3	-	F-8.05	R			

CHANGE P/L AS SHOWN ABOVE ON SHT 1A
 ON SHT 2A:
 ADD 69-4279-2, 66-5025, 69-5434-2 & 69-5434-3 PER S.V. (8)
 ADD DOUBLER -3030 PER S.V. (8)
 DELETE 6-72030-3 & CHANGE 6-72030-3 TO 66-5025 PER S.V. (8)

NAC STA 210



* ADCN REF

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS				PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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1-76 2T

MODEL 707	7/9/67	7-11-37 DWG. REC. CLK.	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ADEN <input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION REASON: TO PROVIDE SUPPORT FOR THRUST REVERSER CONTROL BRACKET	#	ISSUE NO. CHG. NO. 17	DRAWING NO. 8-8122	SHT. 1A
DRAFTED B. HANSON		7-15-57 S.P. GROUP					
CHECKER <i>Brylaw</i>		6-7-000 REQUESTED					
STRESS Ronaldson					SEC. NO. 74		
APPROVED 1/1		**			1-199 \$		
APPROVED 1/1		PROD. INFO.			301-1999		
					CHG. EFF.		

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
3-13	✓	✓	1	-2012						
3-12	✓	✓	1	-3005						
	✓	✓	1	-3011	A4100	.04x2.6x320	12			F10.10 R
	✓	✓	1	-3012	B4100					
X	✓	✓	1	69-284	A4100					
(17)	✓	✓	1	69-4279-2	B52A					
CHG P/L AS SHOWN ABOVE										
	✓	✓	1	-3015	A7100	.063x5.3x9.9	3			F-8.05 R
	✓	✓	1	-3016	B6100	.04x3.6x22	12			F-10.10 R
	✓	✓	1	-3013	A7100	.04x3.6x25	12			F-10.10 R
3-3	✓	✓	1	-3003						
	✓	✓	1	-3014	A6100	.05x14.5x21.8	3			F-8.05 R
5-39	✓	✓	23 31	LC-R6	A4100		8			
	✓	✓	8	ALPPH-T6-3	A4100		8			
5-38	✓	✓	6	LC-R8	A4100		8			
	✓	✓	2	ALPPH-T8-6	A4100		8			
	✓	✓	2	52LHTA 521-048	A7100		7			
	✓	✓	1	66-3859	A4100					

NOTE: SEE ADCN 16 SHT 2A & ADCN 9 SHT 1A

CHG P/L AS SHOWN ABOVE
ADD TO FLAG NOTES AS SHOWN BELOW
SEE SHT 100 FOR SUPPLEMENTAL
INFO. FASTENER LOC PER SHT 2A
EXCEPT AS SHOWN, PART NUMBERS
PER SHT 100

CANCEL
ADCN # 8

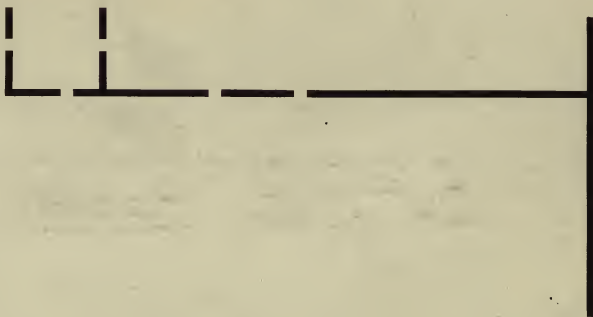
PRR 10275

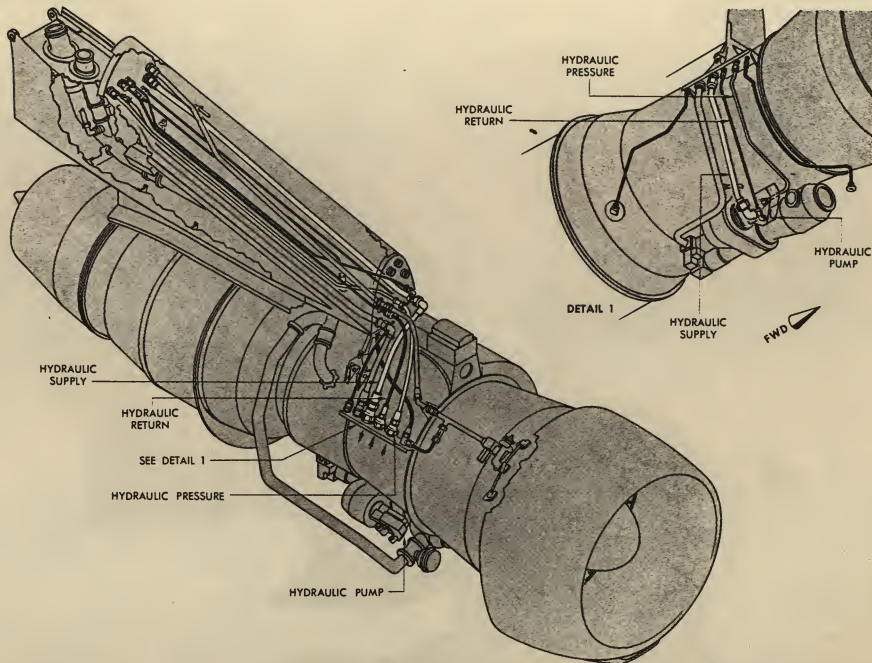
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REF

PRR 10520 PRR 10826

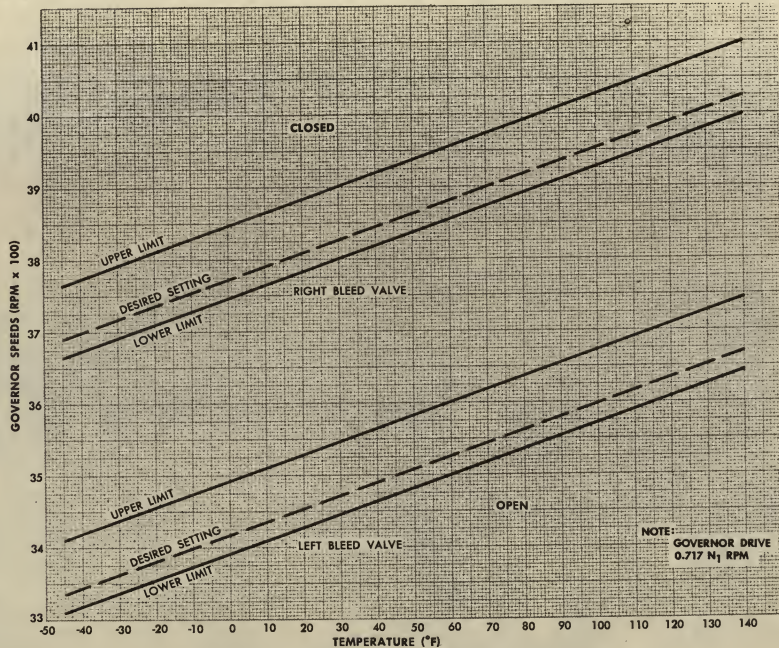
AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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APR 7 1967 27000





NACELLE HYDRAULIC INSTALLATION



ENGINE COMPRESSOR BLEED VALVE OPERATING LIMITS

4. Toilet System

- A. The toilet is an improved, flushing type unit installed above the floor in the lavatory compartments. The toilet has a minimum capacity of 17 gallons in the space above the tank bottom and below the bottom of the upper bowl. The tank (sump) is made of stainless steel and has a bottom sloped and shaped to enable complete drainage and cleaning of toilet waste out through the drain connection. The toilet bowl is shaped for flush cleaning after each usage and is colored to be compatible with the dye used. A top cover forms the top of the toilet tank. It is attached in a manner that will allow its removal for maintenance and yet form an absolute seal against leakage of the toilet contents. A silicone separator is located in the region between the toilet bowl and tank to prevent the passenger viewing the contents. It also prevents tank contents from sloshing up out of the toilet bowl during flight or landing. The separator is cleaned by flushing of the toilet. A standard home type toilet seat and lid are used. A special handle on the seat and lid facilitate raising and lowering. Only toilet assemblies of the same part number are interchangeable.

B. Flushing Pump and System

The flushing system consists of an electrically driven pump, flushing ring and orifices. Flushing media is recirculated toilet liquid treated with deodorant, disinfectant and dye. Momentarily pressing a flush valve after each usage of the toilet causes the entire toilet bowl and separator to be flushed clean of solid material, toilet seat covers and paper. The toilet completes the flushing cycle and turn-off with no further action by the operator. The toilet cannot be flushed when a person is seated on the toilet seat. The flushing cycle is interrupted if the seat is loaded before the cycle is completed. The pump will drain when the toilet is drained to prevent freezing.

C. Ventilation

A connection on the toilet permits ventilation of the air volume above the liquid level in the toilet tank. During flight ventilation air normally enters under the toilet seat, passes down through the toilet bowl through the ventilation connection and then through plumbing to the outside of the airplane. A maximum cabin pressure differential of 8.6 psi will result in a ventilating rate of 40 cu/ft/min. The ventilation connection is so located that fluids cannot pass through with the ventilating air.

D. Drain Valve and Outlet

An internal bulb type valve is installed in each toilet to seal the toilet tank drain outlet. The valve mechanism is completely enclosed and protected from toilet wastes. A cable control connection is provided for drainage of toilet wastes from the tank when actuated on the ground from a remote panel.

E. Cleansing Spray System

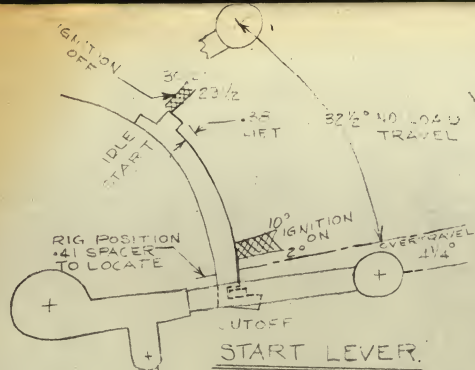
A cleansing spray system enables the toilet bowl and tank interior to be thoroughly flushed out. A connection on the tank permits cleansing solution to be pumped through the system from the toilets service panel on the outside of the airplane through a one inch heavy wall polyethylene pipe. The cleansing system is used to charge the toilet tank with clean deodorant, disinfectant and dye solution.

F. Ground Servicing

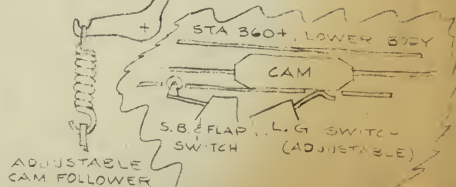
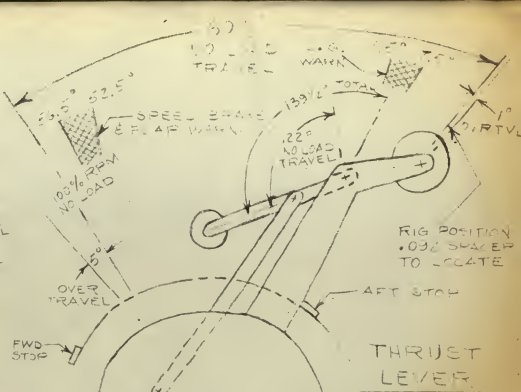
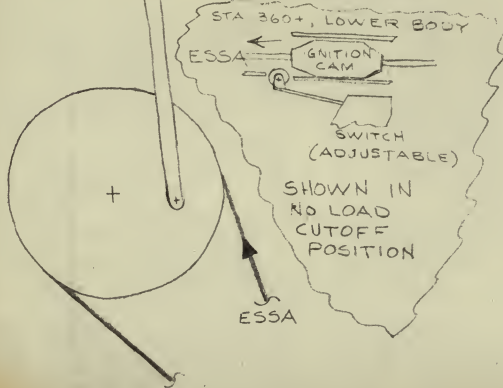
The toilets service panel accesses are located at approximately station 304, right side, for the forward toilets and at approximately station 1393, bottom center, for the aft toilets. Each service panel contains a drain connection, two flush line connections and two flush handles which are cable connected to the toilet valves. The connection fittings are equipped with cap covers.



BLACK PLATE OF 5



START LEVER.



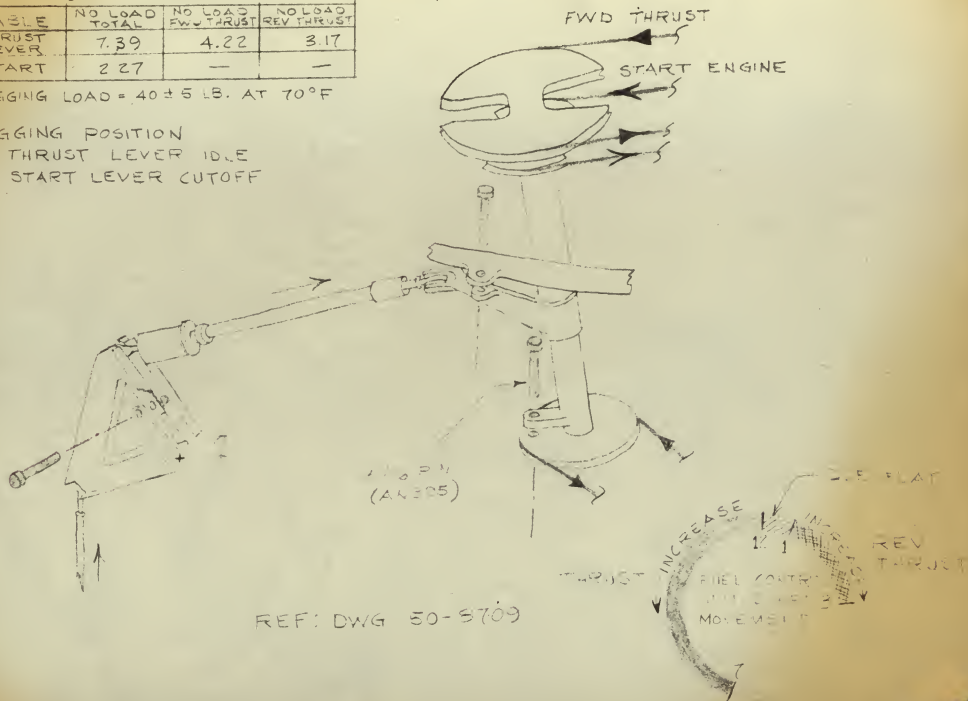
CABLE TRAVEL			
CABLE	NO LOAD TOTAL	NO LOAD FWD THRUST	NO LOAD REV THRUST
THRUST LEVER	7.39	4.22	3.17
START	2.27	—	—

RIGGING LOAD = 40 ± 5 LB. AT 70°F

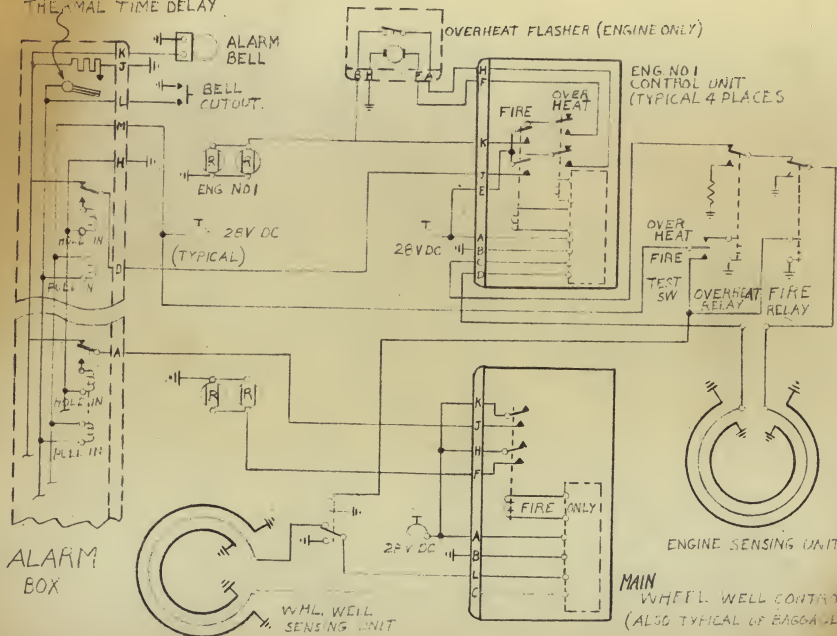
RIGGING POSITION

THRUST LEVER IDLE

START LEVER CUTOFF



THEMAL TIME DELAY



ELR 1754

ADCN

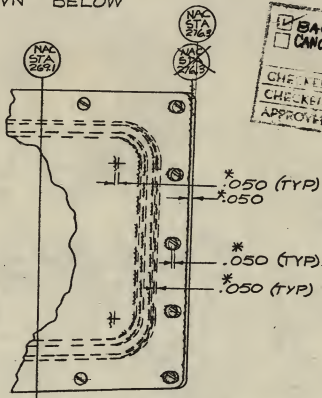
P. PLANNING AFFECTED A/P I & ON

ADD TO FINISH COLUMN IN TUBING P/L AS SHOWN

														-6																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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MODEL 707		B77-22-37 DWG. REC. CLK 907-22-37		BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE INFO WILL BE CHANGED TO INCLUDE THIS ADEN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: TO MAKE LOFT BOARD AGREE WITH STATION CALLOUTS (ENGR ERROR)		DOOR-FIRE EXTING ACCESS ASSY OF	
DRAFTED B HOCKETT		RELEASE				DWG. TITLE	
CHECKED DARTON		B/P GROUP		ADCN		DRAWING NO.	
STRESS Healt		ROHR 4-1441		R-4		65-2111	
APPROVED		REQUESTED		ISSUE NO.		SMT.	
APPROVED		PROD. INFO.		CHG. NO.		1 THRU 199	
PARTS LIST		REPLACES		CHG. NO.		301 THRU 1999	
ZONE		REQD		ZONE CODE		STOCK SIZE (APPROX. NET)	
		PART NUMBER		NOMENCLATURE		MATERIAL	
						HEAT TREAT	
						FINISH	
						P	

REVISE FACE OF DWG AS SHOWN BELOW



<input checked="" type="checkbox"/> BAC RELEASED		KC-135 707
<input type="checkbox"/> CANCEL BY BAC ADEN		
CHECKED	Blakelie 7/7/57	
CHECKED	L. Larson 7/18/57	
APPROVED		

* ADCN REF

P DWG CLARIFICATION ONLY,
PLANNING IN ACCORD

KC-135 NOT AFFECTED

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.

BAC 924 C-RS

CARGO HANDLING

5-80

ELR NO. 330	MODEL NO. 767	767-2-5 DWG. REC. CLK 767-1-5 RELEASE 767-571-5 B/P GROUP NO CHANGE SEE BELOW	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWS WILL BE CHANGED TO INCLUDE THIS ADD AS A VARIATION REASON: TO ADD PART N/O INFO.		A ISSUE NO. PRR 95000 CHG. NO. SEC. NO. 54 1-199 CHG. EFF.	FIRE DETECTOR INST DWG. TITLE ADCN 3 DRAWING NO. 50-10307 SHT. 1				
E.L. RUTLEDGE DRAFTED CHECKED <i>St. Spangler</i> STRESS APPROVED <i>Carton</i> 4/24/57			6-22-57 6-24-57 4/24/57							
ORIGINATOR REQ. A LIEN APP. WATTS <i>rw</i> DEPT. 6-945767 BOX NO. 94-81			PHONE ENGINEERING LIAISON REQUEST PLANNING A. LIEN BOX NO. 94-81			PHONE 3477				
PARTS LIST ZONE	REPLACES	REQD.	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
3-2			-2	CONTROL UNIT SUPPORT ASSY						R
3-3			-3	CONTROL UNIT SUPPORT						R
3-4			-4	SPACER						R
3-6			-5	SPACER						R

CHG P/L AS SHOWN ABOVE TO SHOW PART MARKING INFORMATION

PROD. INFO. PLANNING IN ACCORD
STATUS OF TOOLS &/OR PLANNING

TRG-4370 4/25/57

6-13-57

173

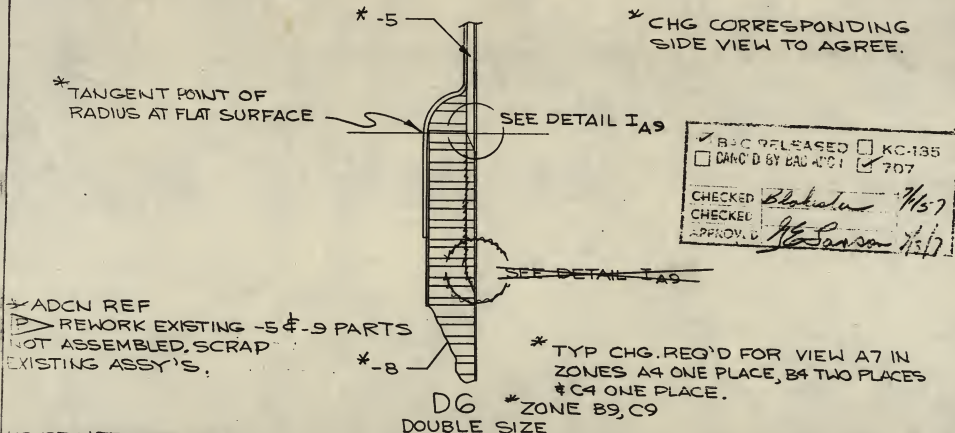
STATUS OF COMPLETED AIRP. &/OR PARTS

Att 1-7

6.63 1T NOT PROCESS

MODEL 707		277-17-37 DWG. REC. CLK 42 7-17-37		BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ADDN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: TO ELIMINATE EXCESSIVE CRUSHING OF -8 CORE IN AREA OF -5 & -9 DOUBLER (ENGRG ERROR)		DOOR FIRE EXTING. ACCESS ASSY OF				
DRAFTED		RELEASE 4-17-57				DWG. TITLE				
CHECKED <i>ARTON</i> 4/15/57		S/P GROUP ROHR 9-1503 REQUESTED		ITEM 72550 CHG. NO.		ADCN DRAWING NO. SHY R1-5 65-2111 -				
STRESS <i>TCB</i> 4/14/57				SEC. NO. 72						
APPROVED <i>[Signature]</i>				1 THRU 139 301 THRU 1999 CHG. EFF.						
APPROVED <i>[Signature]</i> 4/18/57		PROD. INFO.								
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P

REVISE FACE OF DWG AS SHOWN BELOW:



<input checked="" type="checkbox"/> BAC RELEASED	<input type="checkbox"/> KC-135
<input type="checkbox"/> CHANGED BY BAC ADD 1	<input checked="" type="checkbox"/> 707
CHECKED <i>Blakelaw</i> 7/15/57	
CHECKED <i>[Signature]</i>	
APPROVED <i>[Signature]</i> 7/15/57	

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO
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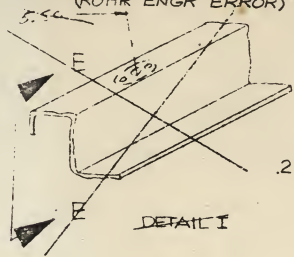
4-57 / NOT PROCESS

MODEL 707 M.R. MATTESON DRAFTED 3/1/57 CHECKED H. DARTON 3/1/57 STRESS Ben Richardson 3/1/57 APPROVED APPROVED Ben Richardson 3/26/57		DWG REC CLK 926-20-57 RELEASE 6-24-57 EC S/P GROUP ROHF 4-11-57 REQUESTED PROO INFO		BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE REASON FOR CHANGE TO INCLUDE THE FOLLOWING: <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON TO CORRECT VIEWS, DIM. & DIM. REQ'D TO LOCATE NUT PLATE (ENGRG. ERROR)		ISSUE NO PRR 7500 CHG NO 72 SEC NO 1 THRU 199 301 THRU 1999 CHG EFF		CLAMP INSTL. FIRE DETECTOR INBD. STRUT DWG TITLE ADCN 69-3161 DRAWING NO R-6 69-3161 SHY											
PARTS REPLACES		REQD		PART NUMBER		NOMENCLATURE		ZONE CODE		STOCK SIZE (APPROX NET)		MATERIAL		HEAT TREAT		FINISH		P	

CORRECT VIEWS & DIM. ON FACE OF DWG. AS SHOWN:
 ADD DIM. AS SHOWN IN VIEW EE.

ADCN R-6 REPLACES ADCN R-1

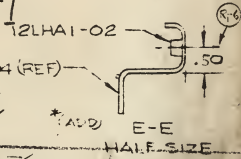
REASON: NUT PLATE WAS LOCATED ON BEND RADIUS
 (ROHR ENGR ERROR)



.218 .228 DIA. HOLE

DRAFTED	B A Woodcraft 5/1/57
CHECKED	H. DARTON 5/1/57
STRESS	Ben Richardson 5/1/57
APPROVED	Ben Richardson 5/1/57

5-88444-2004 (REF)



*ADD E-E HALF SIZE

CHECKED	Ben Richardson 4/1/57
APPROVED	Ben Richardson 4/1/57

5-88444-2004 (REF)

AFT FACE OF 8-819-3000 (REF)

*ADCN REF.
☒ REWORK EXISTING PARTS NOT INSTALLED.

*THIS CHG INCOMPLETE WITHOUT THE FOLLOWING:

ADCN/ISHT	DWG	ADCN/ISHT	DWG
R-2	-	R-4	-
R-3	-	R-5	-
69-3161		69-3161	

KC-135 NOT AFFECTED

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS				PART NUMBER	RELEASE COLUMN IND	DWG SHET NO
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MODEL 707		DWG. REC. CLK 5-24-7		BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG. WILL BE CHANGED TO INCLUDE THIS ACTION <input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION REASON: CABLE LENGTH DETERMINED ON CLASS III MOCK UP		STAND INSTL CONTROL PILOT & COPILOT	
B. LEDGERWOOD		5-24-7				DWG. TITLE	
DRAFTED		5-24-7				ADCN	
CHECKED: D.M.B. 1-9-55		5-24-7				DP' JING NO.	
STRESS		5-24-7		ITEM 95000		SHT.	
APPROVED		5-24-7		CHG. NO.		1	
APPROVED		5-24-7		SEC. NO.		2	
APPROVED		5-24-7		1-199		10 50-5561	
PARTS LIST ZONE		REPLACES		CHG. EFF.		2	
48-2		-2 -1		REO		PART NUMBER	
		-2 -1		1		N/A 303-25-1410	
						CABLE ASSY (HC) B6-2	
						1376	

SHT 1: CHG P/L AS SHOWN

(12)

SHT 2:

IN ZN B6 CHG CALLOUT AS SHOWN

~~NAS 303-25-1410~~
~~NAS 303-25-1376~~ ← (10)

REPLACES ADCN 10-189-2

REASON: LENGTH WAS NOT CLEAR

DRAWN: BLEDGERWOOD 7-2-7

REQUESTED: OLSON 6-3060 (ELR 2119)

CHECKED: D.M. Briggs

APPROVED: 7-5-7

▶ NO PARTS MADE, PLNG. AFFECTED



PLANNING AFFECTED

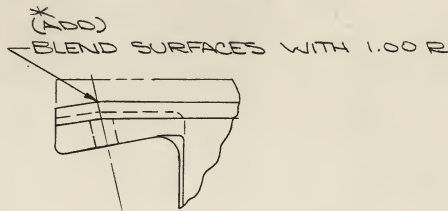
AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS				PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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3-65 1T

(NOT PROCESS)

MODEL 707	266-20-57 DWG. REC. CLK. R766-20-57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ACTION <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION (ENGRG ERROR) REASON: TO ELIMINATE INTERFERENCE WITH ADJACENT STRUCTURE		ISSUE NO.	BRACKET ASSEMBLY					
DRAFTED C. ROSS 5/14	RELEASE 6-20-57 B.C.			DWG. TITLE	NACELLE CONTROLS					
CHECKED H. DARTON 7/5/57	R/P GROUP			ADCN	DRAWING NO.	SHT.				
STRESS W. G. G. 7/1/57	ROHR ENGRG REQUESTED			PRR 10275	RI-2	65-4124 -				
APPROVED	PROD. INFO.			CHG. NO.						
APPROVED		SEC. NO. 77								
		1 THRU 199								
		301 THRU 1993								
		CHG. EPT.								
PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P

ADD NOTE FOR RAD. AS SHOWN BELOW



* 2 B9 * ZN A10

* ASST OF -3

* ADCN REF

RWK EXISTING DETAILED PARTS & ASST'S.
 KC-135 NOT AFFECTED

<input checked="" type="checkbox"/> SAG BT	Blakeslee 4/4/57 J. E. Larson 6/7/57
<input type="checkbox"/> CANCEL	
CHG. BY	
CHG. BY	

4P 6/18

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO
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CONTROLS

27-6-20-57

6-82 77

MODEL	707		
DRAFTED	SEEGERT OF	4-10-7	
CHECKED	<i>Shaeffer</i>	4/11/57	
STRESS			
APPROVED	<i>Ampley</i>	4/11/57	
APPROVED	<i>Barley</i>	4-11-57	

BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE

REASON:
CSTG CONFIGURATION
NOT DEFINED

ISSUE NO.	PRR 95000	ADCN	DRAWING NO.	SHT.
SEC. NO.	77		4	65-2944
1 THRU 199				
301 THRU 1999				

BRACKET-UPPER,
Nº 3 ENGINE CONTROL

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
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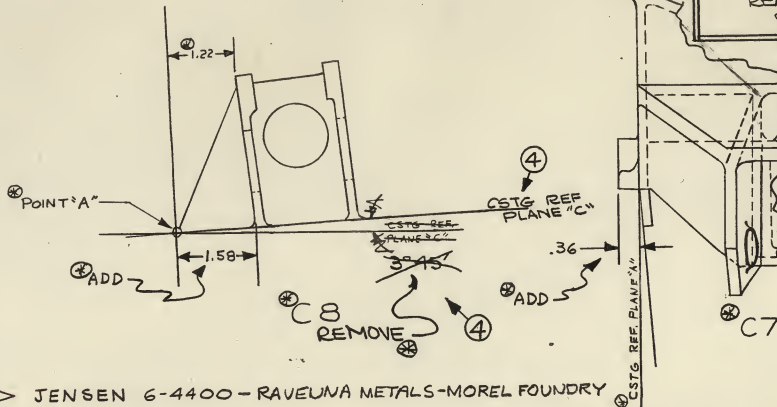
CHANGE SEC. C7, ZN. D8 & SEC. C8, ZN. B8 AS SHOWN BELOW

REPLACES
ADCN #3

REASON - VIEW
SHOWN IN

ERROR 6-12-7
DRAWN - SCHWELLE
CHECKED - *Ampley*
APPROVED - *Barley*
6-15-57

REQ'D BY -
HEATH MFG. CO.
6-12-7



JENSEN 6-4400 - RAVEUNA METALS - MOREL FOUNDRY

NO PARTS MADE

ADCN REF ONLY
4/11/57

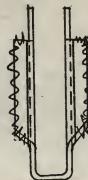
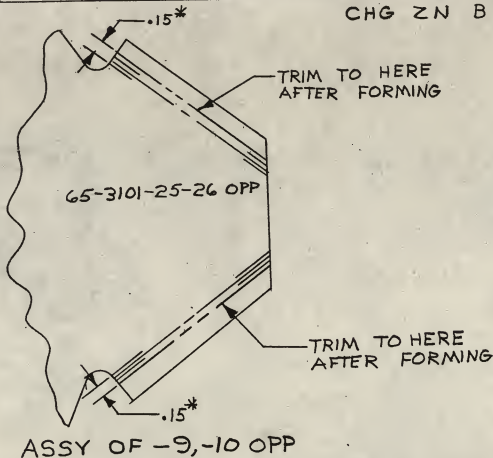
AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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CONTROLS

3.70 17

ELR NO. 2117	MODEL NO. 707	7-7-1999 DWG. REC. CLK 927-12-57 RELEASE 7-7-1999 B/P GROUP NO CHANGE SEE BELOW	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWS WILL BE CHANGED TO INCLUDE THIS AS A VARIATION REASON: FOR CABLE CLEARANCE		ISSUE NO. ITEM 95000 CHG. NO. 51 SEC. NO. 1-1999 CHG. EFF.	FULLEY BRACKETS POWER SYSTEMS CONTROL STAND DWG. TITLE ASSY OF			
B. LEDGERWOOD DRAFTED	7-2-7					ADCN 2	DRAWING NO. 65-3101	SHT. 2	
CHECKED D.M. Briggs	7-5-7								
STRESS									
APPROVED	7-5-7								
ORIGINATOR	PHONE	ENGINEERING LIAISON REQUEST		PLANNING		PHONE			
REQ. OLSON 6-28-57	3410								
APP. C. Strand									
DEPT. 6-30-60	BOX NO. 81-15			BOX NO.					
PARTS LIST ZONE	REPLACES	REQD.	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH P

CHG ZN B1 AS SHOWN



* ADCN REF ONLY

AP 7/10/7

PROD. INFO. REWORK EXISTING ASSYS INSTALLED

STATUS OF TOOLS
10/CH PLANNING

STATUS OF COMPLETED
AIRP. 8/08 PARTS

64510 7-5-7

6-28-57 315

1-50 3T REPRODUCIBLE TO I.P.D. ONLY

MODEL 707		B7 7-11-57 DWG REC CLK 90 7-12-57		BOEING AIRPLANE COMPANY		CONTROL SYSTEM INSTALLATION DWG TITLE THRUST REVERSE		DDA No.		DRAWING No.	
DRAFTED N.P.WEED.		RELEASE 9-12-57		DRAWING DEPARTURE AUTHORIZATION THE DWG WILL NOT BE CHANGED		ISSUE No.		7822		1 65-4259	
CHECKED <i>[Signature]</i>		B/P GROUP		REASON: NEW HI-TEMP BEARING NOT AVAILABLE AT THIS TIME		CHG. No.					
STRESS		DEARSON R REQUESTED				SEC. No.					
APPROVED <i>[Signature]</i>		PROD INFO									
APPROVED <i>[Signature]</i>		SHOP INFO									
APPROVED		ELR OR DCR				CHG EFF					
PARTS LIST ZONE	REPLACES	65-4259	REQD.	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
		✓	2	BE4ZZZ-2ST	BEARING (BAC-B10A-610)	A6	MARLIN ROCKWELL CORP JAMESTOWN N.Y. (OR EQUIV.)				
		✓	1	REP4F5-2	BEARING ROD END (BAC-B10A-640)	C3	MARLIN ROCKWELL CORP JAMESTOWN N.Y. (OR EQUIV.)				
		✓	3	KP4A-7-ST	BEARING (BAC-B10A-620)	A4 C7	MARLIN ROCKWELL CORP JAMESTOWN N.Y. (OR EQUIV.)				
		✓	2	B54Z 	BEARING (BAC-B10A-30DD)		FAFNIR BRG CO. NEW BRITAIN CONN. (OR EQUIV.)				
		✓	1	RE4F5 	BEARING ROD END (BAC-B10A-T)		FAFNIR BRG CO. NEW				
		✓	3	ANZOIKP4A 	SINGLE ROW BALL BEARING.						



REMOVE NON-METALLIC SEALS ≠ REPACK WITH SHELL.
21176A SILICONE GREASE.

OPTIONAL REPLACE NON-METALLIC SEALS WITH TEFLON SEALS



FIRST TWO UNITS MFG'D BY ROHR. ONLY



FIRST FOUR UNITS MFG'D BY I.P.D. ONLY

MODEL 707		DWG REC. CLK 7-3-57 K. 7/3/57		BOEING AIRPLANE COMPANY (ATTLE 11, WASHINGTON) ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ACTION <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: TO BRING TAB BLOCK UP TO DATE		3		END PLATE-UPPER CONTROL STAND ASSY OF			
DRAFTED E. SEYMOUR 7-1-57		RELEASE 7-3-76				ISSUE NO. PRR 9500		ADCN 2		DRAWING NO. 69-1930	
CHECKED		E.P. UNIT				CHG. NO.					
STRESS		REQUESTED				SEC. NO. 51					
APPROVED						NOTED					
APPROVED <i>PPSudduth</i> 7-2-57		PROD. INFO.				CHG. EFF.					
PARTS LIST ZONE	REPLACES	READ	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P	

CHANGE TAB BLOCK TO READ AS SHOWN:

51		65-1795	707							
AIRP. SEC. NC	QTY. PER AIRP.	USED ON DWG NO.	MODEL	AIRPLANE SERIAL NUMBERS				PART NUMBER	RELEASE COLUMN IND	DWG. SHEET NO.

MODEL		KC-135		276-25-57 DWG REC CLK 6-21-57		BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE SPEC WILL BE CHANGED TO INCLUDE THIS DESIGN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: TO COMPLETE CABLE FINISH INFO IN GEN NOTES FOR COMPLIANCE WITH D-15280 (PAR. 3.10.4)		ISSUE NO. PRR 9500 CHG. NO. SEC. NO. 55-3118 & ON CHG. EFF.		DWG. TITLE ADCN DRAWING NO BHT			A D C N 70 78 60 64 73 71 82 82 69 61 62 71 54 66 69 62	
DRAFTED		W.L. SMITH 6-3-57		RELEASE 6-25-57 B/P GROUP						32 5-86801 1				
CHECKED		R. Wital 6/10/57		6-7000 REQUESTED						13 5-86803 1				
STRESS				6-7000 REQUESTED						9 5-86804 1				
APPROVED		P. Meyer 6/1/57		P						5 5-86805 1				
APPROVED		H. H. 6/1/57		PROD. INFO.										
PARTS LIST ZONE		REPLACES		REQD		PART NUMBER		NOMENCLATURE		ZONE CODE		STOCK SIZE (APPROX. NET)		
<p>CHANGE THE GEN NOTE WHICH CALLS FOR CABLE LUBRICATION TO READ AS FOLLOWS:</p> <p>" LUBRICATE THOSE PORTIONS OF CONTROL CABLES THAT TRAVEL OVER DRUMS, PULLEYS, QUADRANTS, & THRU FAIRLEADS, GROMMETS, & SEALS PER BAC 5008 TYPE 9. APPLY PROTECTIVE COATING CONFORMING TO MIL-C-16173 GRADE I TO ALL OTHER PORTIONS OF CABLES. "</p> <p>P EXISTING INSTL'S ARE SATISFACTORY</p> <p>REF DCN "B" ON 5-86810 SHEET 1</p>													6 5-86806 1	73
													8 5-86807 1	71
													17 5-86809 1	82
													5 5-86811 1	82
													9 5-86812 1	69
													4 5-86814 1	61
													9 50-2420 1	62
													10 50-2423 1	71
													5 50-2445 1	54
													11 5-86813 1	66
													8 5-86816 1	69
													8 5-86819 -	62

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS				PART NUMBER	RELEASE COLUMN IND	DWG. SHEET NO.
BAC 524 C-75 L.D.B. (64510) 6-21-7										

BODY

2.58

MODEL 707	57-11-57 DWG. REC. CLK.	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG. WILL BE CHANGED TO INCLUDE THIS ADDN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: TO CORRECT FINISH CALLOUT		PULLEY BRACKET		ADDN DRAWING NO. SHT				
DRAFTED DUDGEON 7/5/7	7/7/11-57 RELEASE			THROTTLE BL 8.30						
CHECKED R Short 7/5/7	6-11-57 B/P GROUP			DWG. TITLE STA 600J-ASSY-C						
STRESS	6-7000 REQUESTED									
APPROVED	PROD. INFO.			ISSUE NO.						
APPROVED Bailey 7-6-57				CHG. NO.	1 66-1867 -					
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
			-3	BRACKET			3 RA 2.15			

CHANGE P/L AS SHOWN:

AIRD 001 E ON MUST COMPLY

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS			PART NUMBER	RELEASE COLUMN IND	DWG. SHEET NO.
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CONTROLS

7-2-57

2-80 @ ELR 115335 2T

MODEL	707	81 5-6-57 DWG. REC. CLK
DRAFTED	WILLAFORD 4-12-7	9-27-57 RELEASE
CHECKED	DM Briggs 4-15-7	7-3-7 CP B/P GROUP
STRESS		OLSON 6-30-60 REQUESTED
APPROVED	<i>Kochel</i> 4-15-7	<i>P</i>
APPROVED		PROD. INFO.

BOEING AIRPLANE COMPANY
ADVANCE DRAWING CHANGE NOTICE
 THE DATA WILL BE CHANGED TO INCLUDE THE ADDN
☐ DEVIATION ☐ VARIATION
 REASON: SCREWS
 INTERFERE WITH CABLE

SWITCH INSTL THROTTLE OPERATED			
DWG. TITLE STA 160-380			
ISSUE NO.	ADCN	DRAWING NO.	SHY.
ITEM 95000	3	65-2173	1
CHG. NO. 53	2	65-2173	2
SEC. NO. 4		65-2173	1
1-3995501-1999	29	65-2173	2
CHG. EFF.			

PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
18		2	14	CLIP-ACTUATOR	A7-2	.063x2.8x2.0	2	T4	F2.15	R
-14	(4) →	2	-30	CLIP-ACTUATOR	A9-2	.063x2.8x3.4	2	T4	F2.15	R

CHANGE P/L AS SHOWN

IN ZONE C4 CHANGE AS SHOWN

-69-2479

BAC-M105-30-3RB

HALF SIZE*

(3) → -30

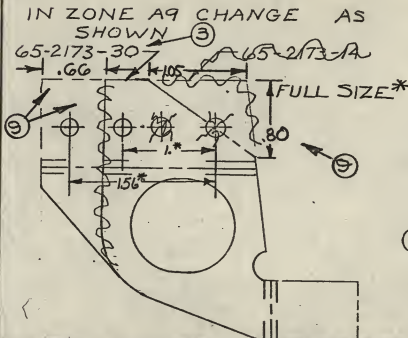
IN ZONE A4 CHANGE AS SHOWN
HALF SIZE*

(3) → -30

-1 ASSY

REPLACES ADCN 30N SHIT
 TO -30
 ADDED DIMS AS SHOWN
 REASON: PART CANT BE MADE
 RECD. CHAMBERLIN ELR 11-6-64
 DRAWN: B. STEWART 6-23-67
 CHECKED: B. STEWART 6-23-67
 APPROVED: *Kochel* 6-24-67
 PROD. INFO: 6-24-67
 DATED IN ACCORD WITH

ADCN 4 SHIT REPLACES 3
 ADCN 3 SHIT REPLACES 2
 REASON: RELEASE SUPPLIED W/ONG DASH NO.
 ADVANCE COPIES
 ONLY RELEASED



SCRAP EXIST. 65-2173-14 PARTS
 NEW PLNG RECD - RUK CORR. INSTAS.

AIRPLANE SERIAL NUMBERS

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL
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PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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BAC 924 C-RS

TK6-45104/167 TK6-45106/246 (4)

RD C4/22/7 8-7000

10-75 IT

MODEL 707		DWG. REC. CLK 6/20/57		BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DRAWING WILL BE CHANGED TO INCLUDE THIS REASON <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: TO ADD RELEASE FOR AA & TWA		ISSUE NO. 03291		DWG. TITLE CONTROL INSTALLATION ENGINES		DWG. NO.		SHT.	
DRAFTED R. HARDING		RELEASE 7-3-72B				CHG. NO. 7		DRAWING NO. 50-8709		1			
CHECKED Hunt		S/P GROUP											
STRESS 707 Controls REQUESTED		PROG. INFO.											
APPROVED R. Downey		6/23/7				SEC. NO.							
APPROVED R. Hagel		6-24-7				NOTED CHG. EFF.							

PARTS LIST ZONE	REPLACES	QTY	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
	NEW	2		65-6416	VALVE INSTL.	D8					
	NEW	2		65-6416-1	VALVE INSTL.	D8					

CHANGE PARTS LIST AS SHOWN ABOVE:

CHANGE NOTES AS SHOWN:

- ~~3. USED ON AIRPLANES 101-199~~
 - ~~3. USED ON AIRPLANES 101-199 & 401-499~~
 - ~~10. USED ON AIRPLANES 1-99 & 301-1999~~
 - ~~10. USED ON AIRPLANES 1-99 & 301-399 & 501-1999~~
- ADD TO ENGINE START SYSTEM RIGGING INSTRUCTIONS:
3. WITH RIGGING PIN **A** INSERTED THRU 65-2320 & 65-2319-1 BRACKET & $\frac{1}{8}$ RIGGING PIN INSTALLED THRU 66-4449 ARM & 10-60003 VALVE, ADJUST & INSTALL 66-4450 ROD. TIGHTEN CHECK NUT & REMOVE RIGGING PINS. (THIS NOTE APPLIES TO AIRPLANE 101-199 & 401-499 ONLY).

A ADDITION OF BASIC RELEASE FOR AA & TWA

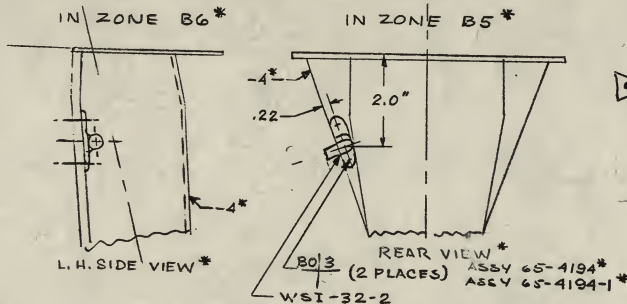
AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS				PART NUMBER	RELEASE COLUMN IND
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1-66 17

MODEL 707		27-16-57 DWG REC CLK	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE <small>THIS WILL BE CHANGED TO INCLUDE THIS ACTION</small> <input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION REASON: ADD NUTPLATE FOR FIRE DETECTOR ELEMENT		ISSUE NO. PRR 10453. CHG. NO.	BRACKET ASSY NACELLE CONTROLS DWG. TITLE
DRAFTED T. BURDO	7/1/57	27-17-57 REL. DATE			ADCN	DRAWING NO.
CHECKED <i>[Signature]</i>	7/10/57	TYP GROUP 6-7000 DOUBL. DIMEN. REQUESTED			2	65-4194
STRESS G. L. J. J.	7/14/57				SEC. NO. 77	
APPROVED <i>[Signature]</i>	7/11/57				1-199	
APPROVED <i>[Signature]</i>		PROD. INFO.			301-1999	
					CHG. EFF.	

PARTS LIST ZONE	REPLACES	-1	65 4194	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
	NEW	✓	✓	1	WSI-32-2	SPACER PLATE NUT, BAC-N10DZ-3-20						

CHANGE P/L AS SHOWN ABOVE
CHANGE PICTURE AS SHOWN BELOW.




* ADCN REF ONLY

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.

CONTROLS

P.55

REL TAG 137303

MODEL 707	277-8-57 DWG REC CLK 7-1-57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ADDN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: PART REQUIRES PROTECTIVE FINISH		ISSUE NO. PFD 95000	BRACKET THROTTLE PULLEY ASSY DWG. TITLE STA 277					
DRAFTED STARK	7-1-57			CHG. NO.	ADCN	DRAWING NO	QTY.			
CHECKED J.B. Sullivan	7-1-57			51	1	69-1000	-			
STRESS	6-4800			SEC. NO. 1-1994						
APPROVED	REQUESTED	CHG. EFF.								
APPROVED Barbly 7-8-57	PROD. INFO. 									
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	X
			- 3	BRACKET THROTTLE PULLEY						
CHANGE FINISH CALLOUT AS SHOWN										



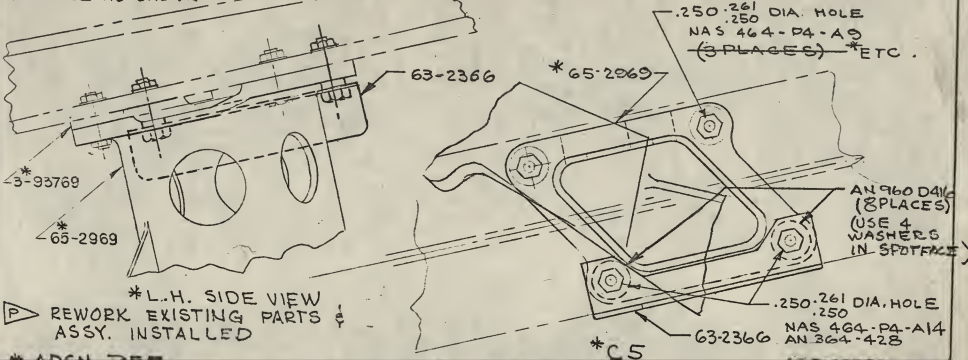
A/P 001 & ON MUST COMPLY

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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MODEL 707		DWG. REC. CLK. 2/14/67		BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG. WILL BE CHANGED TO INCLUDE THE ADON <input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION REASON: WIRE ROUTING PROVISIONS (REF. COORD. SHT CX10-104)		BRACKET INSTL. NO 4 ENGINE CONTR		ADCN			
DRAFTED W. SCHOLLHORN 2-8-57		RELEASE 4-26-57				DWG. TITLE UPPER					
CHECKED J. RASNAK 6-18-57		B. GROUP WATANABE 6-30-60 REQUESTED		ISSUE NO. P.R.R. 95000 CHG. NO.		ADCN 1 65-2870		SHT -			
STRESS				SEC. NO. 79							
APPROVED <i>[Signature]</i> 9/19/57				1-199 \$301 - CHG. EFF. 1999							
APPROVED <i>[Signature]</i> 8-20-57		PROD. INFO.									
PARTS LIST ZONE	REPLACES	65-2870	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
		XV	31	NAS-464-P4-A9	BOLT- CLOSE TOL.						
		✓	2	NAS-464-P4-A14	BOLT- CLOSE TOL.						
	INCREASE QTY AS SHOWN (NEW)	✓	8	AN 360 D 416	WASHER						
		✓	1	63-2366	ANGLE-BRACKET						

ADD TO P/L AS SHOWN ABOVE. ALSO ADD CHECK-OFF TO EXISTING PARTS IN REL. COL. ON NEXT REVISION

ZUCS AS ADD TO PICTURE AS SHOWN



* L.H. SIDE VIEW
P REWORK EXISTING PARTS & ASSY. INSTALLED

* ADCN REF

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.

MODEL	707
DRAFTED	W. SCHÖLLHORN 4-8-57
CHECKED	W. SOUTHEY 4-25-57
STRESS	
APPROVED	<i>[Signature]</i> 4/15/57
APPROVED	<i>[Signature]</i> 4/24/57

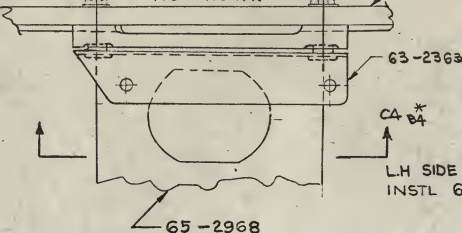
116-3637
DWG. REC. CLK.
626-26-57
RELEASE
6-26-57
R/P GROUP
WATANABE
6-3060
REQUESTED
O.S.A.
P
PROD. INFO.

BOEING AIRPLANE COMPANY	
ADVANCE DRAWING CHANGE NOTICE	
THE DWG WILL BE CHANGED TO INCLUDE THIS ADN	
<input type="checkbox"/> DEVIATION	<input type="checkbox"/> VARIATION
REASON:	
WIRE SUPPORT NEEDED	
(REF. COORD. SHT. CX10-100)	

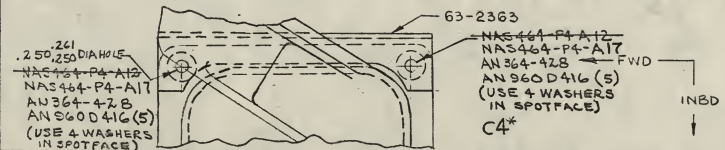
BRACKET INSTL - NO. 1		
ENGINE CONTROL.		
DWG. TITLE UPPER		
ADCN	DRAWING NO.	SHT.
	65-2869	-
ISSUE NO.	CHG. NO. 95000	SEC. NO. 79
	1-199	
	301-1999	
	CHG. EFF.	

PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
	NEW	✓	1	63-2363						
	INCREASE QTY AS SHOWN	✓	8	AN360D416						
		✓	2	NAS464-P4-A12 BOLT MACHINE						
		✓	2	NAS464-P4-A17 BOLT MACHINE						

CHG P/L PER ABOVE. CHG PICTURE AS SHOWN. 50-8731 (REF.)*



▷ REWORK EXISTING PARTS & ASSEMBLIES INSTALLED. CLASS III MOCKUP IN ACCORD



*ADCN REF ONLY

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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CONTROLS

COORD. SHT CX10 - 40 2-60

A
D
C
N

MODEL 707	27-8-57 DWG REC CLK
DRAFTED W. SCHÖLLHORN 6-11-57	RELEASE 6/17/57
CHECKED JAMOLL 6227	7-9-74 B
STRESS	P.P. GROUP 6-3060
APPROVED R. Larson 9/27/57	WATANABE REQUESTED
APPROVED	O.S.A. P
	PROD. INFO

BOEING AIRPLANE COMPANY

ADVANCE DRAWING CHANGE NOTICE

THE DRAWING WILL BE CHANGED TO INCLUDE THIS ACTION

☐ DEVIATION ☐ VARIATION

REASON: SUPPORT NEEDED FOR ALTERNATOR CABLES

(REF COORD SHT CX-10-40)

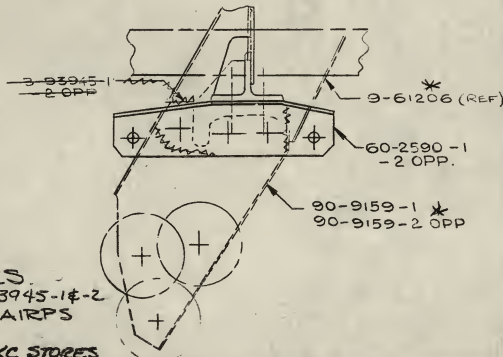
BRACKET INSTALLATION THROTTLE CONTROL	
DWG TITLE: 5 STA 561.779	
ISSUE NO.	ADCN
CHG. NO. 95000	1
SEC. NO. 24	90-9160
CHG EFF 1-1999	-

PARTS LIST ZONE	REPLACES	-2	-1	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
				✓	3-93945-1	SUPPORT ANGLE						
				✓	3-93945-2	OPP 3-93945-1						
NEW	3-93945-1			✓	60-2590-1	SUPPORT ANGLE						
NEW	3-93945-2			✓	60-2590-2	OPP 60-2590-1						

CHANGE P/L AS SHOWN ABOVE.

REPLACE SUPPORT ANGLE 3-93945 -1 & -2 OPP WITH SUPPORT ANGLE 60-2590-1 & -2 OPP.

IN REAR VIEW & LH SIDE VIEW CHANGE 3-93945-1 -2 OPP PICTURE & CALLOUT TO 60-2590-1 -2 OPP PICTURE & CALLOUT AS SHOWN.



P REWORK EXISTING ASSEMBLIES INSTALLED. SCRAP EXISTING 3-93945-1 & -2 PARTS INSTALLED ON 707 AIRPS

* ADCN REF. ONLY

RETURN PART NOT INSTALLED TO KC STORES

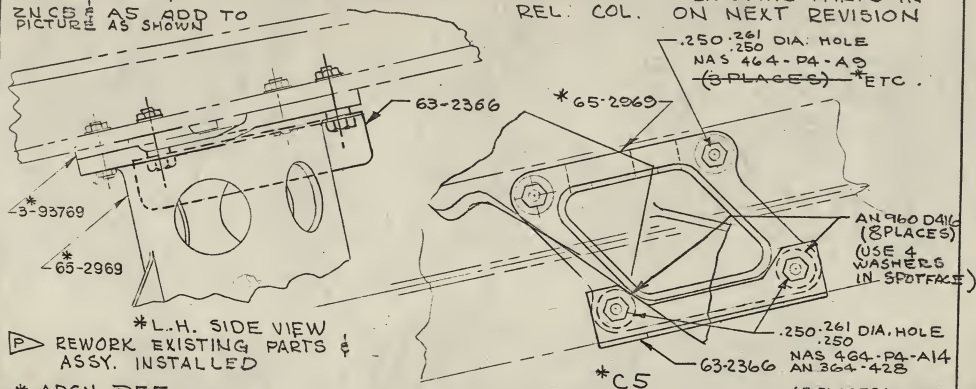
AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS				PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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CONTROLS

5-70 1T COORD. SHT. CX10 - 104

MODEL 707		DWG. REC. CLK. 27 6-26-57 27 9/24/57		BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE REASON: WIRE ROUTING PROVISIONS (REF. COORD. SHT CX10 - 104)		ISSUE NO. P.R.R. 95000 CHG. NO.		BRACKET INSTL. NO 4 ENGINE CONTR DWG. TITLE UPPER			
DRAFTED W. SCHOLLHORN 8-8-57		RELEASE 4-26-57				ADCN 1		DRAWING NO. 65-2870		SHT. -	
CHECKED J. RASHACK 6-18-57		B.T. GROUP WATANABE 6-30-60 REQUESTED		REASON: WIRE ROUTING PROVISIONS		SEC. NO. 79					
STRESS APPROVED <i>[Signature]</i> 9/19/57		PROD. INFO.				1-199 \$301 - CHG. EFF. 1999					
APPROVED <i>[Signature]</i> 6-20-57											
PARTS LIST ZONE	REPLACES	65-2870	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
		X✓	31	NAS-464-P4-A9	BOLT- CLOSE TOL.						
		✓	2	NAS-464-P4-A14	BOLT- CLOSE TOL.						
	INCREASE QTY AS SHOWN	✓	5	AN 960 D416	WASHER						
	(NEW)	✓	1	63-2366	ANGLE-BRACKET						

ADD TO P/L AS SHOWN ABOVE: ALSO ADD CHECK-OFF TO EXISTING PARTS IN
ZUCB & AS ADD TO REL. COL. ON NEXT REVISION
PICTURE AS SHOWN



AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS			PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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BAC 924 C-RS

[Signature] 620-7
6450

4/24 2-7000

A
D
C
N

CONTROLS

1-80

ELR NO. 812	MODEL NO. 707	27 6-24-57 DWG. REC. CLK 28 6-25-57 RELEASE 6-25-57 B/P GROUP NO CHANGE SEE BELOW	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DRAWING WILL BE CHANGED TO INCLUDE THIS TOOL AS A VARIATION REASON: TO PROVIDE PROPER FINISH		A ISSUE NO. PRR 95800 CHG. NO. SEC. NO. 53 1-1999 CHG. EFF.	PULLEY BRACKET DRAWING TITLE CONTROL-STANDARD LWR DWG. TITLE ADCN 4 DRAWING NO. 50-10277 BHT. —				
DRAFTED DBR	4/5/57		ENGINEERING LIAISON REQUEST ELR		PLANNING		PHONE			
CHECKED R. Burt	6/18/57				PEKASKY		3469			
STRESS										
APPROVED Baily 6-20-57										
ORIGINATOR		PHONE		BOX NO. 9190						
REQ. W. Schuer	4192									
APP. W. Schuer	4192									
DEPT. 6-4800	BOX NO. 90-19									
PARTS LIST ZONE	REPLACES	REOD.	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
			-5						5230 52F 3.301	

PROD. INFO. ~~APL 001 & ON MUST COMPLY~~ APL 001 & ON MUST COMPLY
 STATUS OF TOOLS ~~DETAIL PLANNING AFFECTED~~ RERWORK PARTS INSTALLED
 B/OR PLANNING ~~DETAIL PLANNING AFFECTED~~ RERWORK PARTS INSTALLED
 STATUS OF COMPLETED AIRP. B/OR PARTS

JUN 17 1957 130

AP 8/24

BODY

6-64

REJ TAG 308805

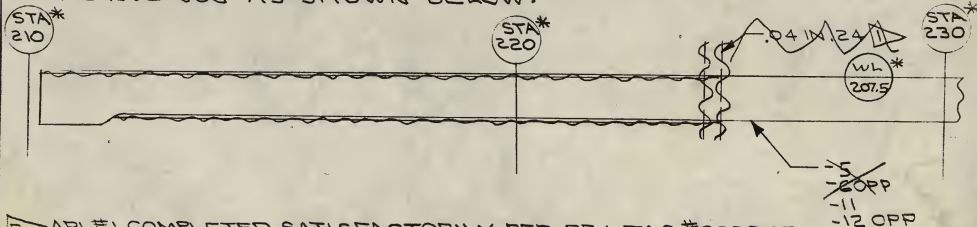
MODEL 707		876-24-33	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE RE: DWG WILL BE CHANGED TO INCLUDE THIS ACTION <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: JOG ISN'T NECESSARY & INTERFERES WITH 5-73128-3050.		ISSUE NO. 95000	BEAM INSTL THROTTLE STAND B-730, STA 210-252.6		
G.BERESFORD DRAFTED	9/13/7	DWG. REC. CLK 22714/25/57			CHG. NO.	DWG. TITLE	ADCN	DRAWING NO.
CHECKED <i>Ref. H. Anderson</i>	4/15/7	RELEASE 4.25.57 (18)	B/P GROUP		SEC. NO. 41	5	69-1026	
STRESS		REJ TAG 308805 REQUESTED	PROD. INFO.		1E ON CHG EFF.			
APPROVED <i>Carth</i>	4/17/57							

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
5	-2 -1	✓ 1	5	CHORD UPPER					
6		✓ 1	6	OPP-5 (EXCEPT AS NOTED)					
5	-5	✓ 1	-11	CHORD UPPER	AND 10134-1005x42.4LG				
6	-6	✓ 1	-12	OPP-11 (EXCEPT AS NOTED)					

CHG P/L AS SHOWN ABOVE:

CHG -5, -6 OPP TO -11, -12 OPP ALL PLACES.

REMOVE JOG AS SHOWN BELOW:



▶ APL#1 COMPLETED SATISFACTORILY PER REJ TAG #308805.
 SEE MRA #54626 FOR APL#2 & 3. SCRAP EXISTING PARTS
 NOT INSTALLED EXCEPT AS NOTED ON MRA #54626.

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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*ADCN REF

DI 7/14/57

11-20 3T (1A)

MODEL	707
DRAFTED	G. OSTERLOH
CHECKED	T. BURDO
APPROVED	<i>ET</i>
APPROVED	<i>Donaldson</i>
APPROVED	<i>Rehage</i>

404-26-57
DWG. REC. CLK.
824-26-57
RELEASE
7-16-57
7-16-57
B7C GROUP
DONALDSON
C-7000
REQUESTED
PROD. INFO.

BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE

THE DWG WILL BE CHANGED TO INCLUDE THE ADCN
☐ DEVIATION ☐ VARIATION

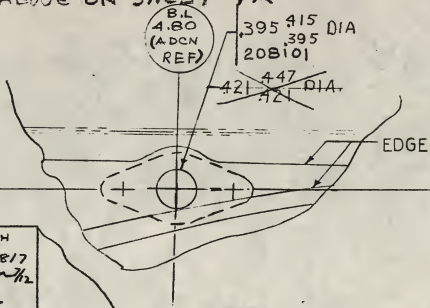
REASON: PARTS OMITTED
FROM P/L-MATCH MATING
PART & SUPERSEDE ADCN NO 17

MID FAIRING INSTALLATION ENG NAC STRUT	
ISSUE NO.	ADCN
CHG. NO.	DRAWING NO.
SEC. NO.	SHT.
1-199	1
301-1999	4
	5-88795
	5-88795
	1A
	2A
	1A

PARTS LIST ZONE	REPLACES		REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
⑦	NEW	-3000	1	65-4105	FIRE DETECTOR						
	NEW	-3001	1	65-5677-1	SEAL INSTL	B72A					
	NEW	-3002	1	65-5677-2	SEAL INSTL	B72A					

CHANGE P/L AS ABOVE ON SHEET 1A

IN ZONE C9 SHT 2A
CHANGE HOLE CALLOUT
AS SHOWN AT B5



DRAFTED - G. OSTERLOH
CHECKED - T. BURDO 7/8/57
APP. *ET* Donaldson
APP. *Shiken* 7/12
PRR 10453

ADCN 4 REPLACES
ADCN 1 SHT 1A

④ ADCN NO 2 WILL
NOT BE RELEASED
ON SHT 2A.

USE OF EXISTING
PARTS PERMITTED
WITH LARGER HOLE.

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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5.63 27 NOT PROCESS

MODEL 707		DWG. REC. CLK. 27-11-57		BOEING AIRPLANE COMPANY SEATTLE 14, WASHINGTON		FWD. FAIRING NACELLE	
R. MATTESON		EX 7/12/57		ADVANCE DRAWING CHANGE NOTICE REL. CHG. WILL BE CHARGED TO INCLUDE THIS ADON <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION FORE & AFT SKINS SPLIT TO REASON: MAINTAIN MANUFACTURING TOLERANCES. (MFG. FACILITY)		ASSEMBLY OF	
DRAFTED		RELEASE 7-15-57 23				DWG. TITLE	
CHECKED <i>DRITON</i>		B/P UNIT		ISSUE NO.		ADCN	
STRESS <i>W. E. ...</i>		ROHR 4-1302		ITEM 7142		DRAWING NO.	
APPROVED <i>[Signature]</i>		REQUESTED		CHG. NO.		SHT.	
APPROVED <i>[Signature]</i>		PROD. INFO.		SEC. NO.		R-6 50-8281	
PARTS LIST ZONE		REPLACES 50-8281		1 THRU 199		301 THRU 1992	
ZONE		REED		CHG. EFF.			

PARTS LIST ZONE	REPLACES	REED	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
1-23	✓	1	-22	DOUBLER-SKIN STA 111.20	C6-2	.040X1.60X4.3	2	-	SRF	R
1-56	✓	1	-55	DOUBLER-DOOR DIP STICK	E11-2	.040X10.5X15.0	2	-	SRF	R
1-67	✓	1	-66	FILLER FRAME STA 117.50	C5-2	.018X1.60X10.00	2	-	SRF	R
1-66	✓	1	-65	FILLER FWD FRAME	B7-2	.018X2.10X34.00	1	-	SRF	R
NEW -22	✓	1	-806	DOUBLER-SKIN STA 111.20	A4-3	.040X1.60X4.20	2	-	SRF	R
NEW -22	✓	1	-807	DOUBLER-SKIN FLANGE	A4-3	.040X1.60X1.8	2	-	SRF	R
NEW -65	✓	1	-808	FILLER-FWD FRAME	A11-3	.016X2.10X29.6	1	-	SRF	R
NEW -65	✓	2	-809	FILLER-FWD FRAME FLANGE A11-3		.016X2.10X2.20	1	-	SRF	R
NEW -66	✓	1	-810	FILLER-FRAME STA 117.50	A2-3	.016X1.60X35.20	3	-	SRF	R
NEW -66	✓	2	-811	FILLER-FRAME FLANGE	A2-3	.016X1.60X2.40	3	-	SRF	R
NEW -55	✓	1	-812	DOUBLER-DOOR DIP STICK	A4-3	.040X10.5X14.20	2	-	SRF	R
NEW -55	✓	1	-812	DOUBLER-FLANGE	A4-3	.040X10.5X2.0	2	-	SRF	R

REVISE PARTS LIST AS SHOWN

BAC RELEASED <input type="checkbox"/> KC-135	
707 STR. <i>6-257</i>	
CHECKED <i>Blakely</i>	6/25/57
CHECKED <i>[Signature]</i>	6/25/57
APPROV. D. <i>[Signature]</i>	

THIS CHG. INCOMPLETE WITHOUT:
ADCN SHT DWG.

R-1, R-5	1	50-8281
R-1-3	2	50-8281
R-2, R-4, R-5	3	50-8281
R-3	2A	4-5177
R-4	2A	4-5181
R-12	100	5-85655

REWORK EXISTING PARTS & ASSY'S NOT INSTALLED.

KC-135 NOT AFFECTED

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND
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MODEL 707

DRAFTED J.W. BEST 5/1/57

CHECKED *Norton* 5/1/57

STRESS *W. G. B. C.* 5/1/57

APPROVED *W. G. B. C.* 6/1/57

APPROVED *W. G. B. C.* 5/1/57

581-509


B7-11-57
DWG. REC. CLK.
R17112/57
RELEASE
7-15-57
B/P GROUP
ROHP
4-1346
REQUESTED
X
PROD. INFO.

BOEING AIRPLANE COMPANY
ADVANCE DRAWING CHANGE NOTICE
THE DWG WILL BE CHANGED TO INCLUDE THIS ADCN
☐ DEVIATION ☒ VARIATION
REASON: WORK HARDENED MTL
CANNOT BE PROPERLY FORMED
(MFG FACILITY)

ISSUE NO.
ITEM 7142
CHG. NO.
SEC. NO. 71
1 THRU 199
301 THRU 1999
CHG. EFF.

FORWARD FAIRING
NACELLE
DWG. TITLE ASSEMBLY OF
ADCN DRAWING NO. SHT.
R1-7 50-8281 1
8 50-8281 1

PARTS LIST ZONE	REPLACES	50-8281	READ	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
1-6	✓	✓	1	-5	WEB-FWD FRAME B7-2		.040 X 18.0	△	—	SRF	R
1-8	✓	✓	1	-7	CHORD-LOWER FWD FRAME B8-2		X 16.0	△	—	12.207 SRF	R
1-28	✓	✓	1	-27	WEB-FRAME STA 117.50 C5-2		X 28	△	—	12.207 SRF	R
1-29	✓	✓	1	-28	CHORD-UPPER FRAME STA 117.50 C5-2		.050 X 1.80	△	—	12.207 SRF	R
1-30	✓	✓	1	-29	CHORD-LOWER FRAME STA 117.50 B5-2		X 42.0 .050 X 1.80 X 30.0	△	—	12.207 SRF	R


*(ADD)  CRES SHT 17-7PH BMS 7-12B SOFT TEMP COND 1, HT TR 125,000 TO 150,000 PSI AFTER FORMING. (8)
CHG MATERIAL CALL OUT IN PARTS LIST & ADD NOTE AS SHOWN ABOVE

SEE NOTE 8 THIS SHEET
BAC RELEASED KC-135
CANCELED BY BAC ACC. 707
707 STR. *W. G. B. C.* 6-27-57
CHECKED *Blanchard* 7/1/57
CHECKED
APPROV. D *W. G. B. C.* 7/1/57

REPLACES ADCN R1-7
REASON: AISI 302 ANNEALED COMPROMISES AIRPLANE STRENGTH.

*THIS CHANGE INCOMPLETE WITHOUT ADCN R1-5 SHT 1 DWG 50-8281.

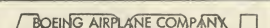
* ADCN REF ONLY

 EXISTING PARTS & ASSYS MAY BE USED WITHOUT REWORK.

KC-135 NOT AFFECTED

REF BACTWX 6-4475.3-1250-614
DTD. 5-10-57

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET
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MODEL 707	Dr 7-11 52 DWG. REC. CLK.	 <p>BOEING AIRPLANE COMPANY SEATTLE 11, WASHINGTON</p> <p>ADVANCE DRAWING CHANGE NOTICE</p> <p>THE DWG. WILL BE CHANGED TO INCLUDE THIS ACTION</p> <p><input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION</p> <p>FAIRING WILL BE CALLED OUT ON REASON-COWL INSTL. DWG. (2) ELIMINATE INTERFERENCE WITH TURBO-COMPRESSOR. (3) ALLOW FOR VERTICAL REMOVAL.</p>	FWD FAIRING NACELLE ASSEMBLY OF			
R. MATTESON	Dr 7-11 52		DWG. TITLE			
DRAFTED	7-15-57		ISSUE NO.	ADCN	DRAWING NO.	SHT.
CHECKED	7-15-57		ITEM 7142		R 5 50-8281	1
STRESS	7-15-57		CHG. NO.			
APPROVED	7-15-57	SEC. NO. 71		7 50-8281	1	
APPROVED	7-15-57			1 THRU 199		
APPROVED	7-15-57			301 THRU 1999		
				CHG. EFF.		

PARTS LIST ZONE	REPLACES	50-8281	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
1-3	-2	XV	+1	X -70							
1-4	-3	XV	+1	X -71			0.32X6.2 X5.6 6.2	☆			
1-7	-6	XV	+1	X -69			0.40X7.0 3.0 X5.8 7.0	☆			
1-10	-9	XV	+1	9			0.32X6.3 6.0 X6.0	☆			
1-11	-10	XV	+1	10	OPP -9						
1-14	-13	XV	+2	X -75							
1-22	-21	XV	+1	X -76							
1-25	-24	XV	+1	X -77							
1-5	-4	XV	+1	X -72	OPP-8-71						

KC-135
707
6-27-77
157157

CANCELS ADCN 1 SHT.

REASON: FORE & AFT SKINS SPLIT TO MAINTAIN MANUFACTURING TOLERANCES. (MFG FACILITY) WORK HARDENED MTL CAN NOT BE PROPERLY FORMED. (ENGR. ERROR)
REVISE PARTS LIST & TAB BLOCK AS SHOWN.

▷ CRES SHT 17-7 PH BMS 7-12B SOFT TEMP COND 1,
 HT TR. 125,000 TO 150,000 PSI AFTER FORMING.
 ▷ REWORK EXISTING PARTS & ASSY'S NOT INSTALLED.
 KC-135 NOT AFFECTED *ADN REF

R1-4, R1-6, R1-7	1	50-8281
R1-3	2	50-8281
R1-2, R1-9, R1-5	3	50-8281
R1-3	2A	4-5177
R1-4	2A	4-5181
R1-12	100	5-8565

☐ SEARCHED ☒ 10
☐ SERIALIZED ☒ 10
☐ INDEXED ☒ 10
☐ FILED ☒ 10
☐ BAC LEAD ☒ 10
☒ CANCELLED BY BAC ☒ 10
 707 5TH E 6TH ST
 CHECKED 6-27-77
 CHECKED 6-27-77

REPLACES ADCN R. 5

REASON: AISI 302 CRES ANNEALED COMPROMISES AIRPLANE STRENGTH.

[illegible]

AIRPLANE SERIAL NUMBERS

A
③

JP Moore

5-63 27 NOT PROCESS

MODEL 707		5/7-11-57 DWG. REC. CLK. RX 7/12/57		BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE NO DWG WILL BE CHANGED TO INCLUDE THIS ADCH <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON FOR AFT SKINS SPLIT TO MAINTAIN MANUFACTURING TOLERANCES. (MFG. FACILITY)		FWD. FAIRING NACELLE ASSEMBLY OF	
DRAFTED R. MATTESON		RELEASE 7.15-57 E C				DWG. TITLE	
CHECKED H. DARTON		B/P GROUP ROHR 4-1302 REQUESTED				ADCN DRAWING NO. SHT.	
STRESS W.E. K... 5/15		APPROVED J. Buckner 5/15				ITEM 7142 R-4 50-8281 1	
APPROVED J. Hodgkins 5/15		PROD. INFO		SEC. NO. 71		1 THRU 199	
APPROVED J. Hodgkins 5/15				301 THRU 1999		CHG. EFF.	

PARTS LIST ZONE	REPLACES	50-8281	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
-49	✓	1		-48	SKIN-FWD	C2	.032x25.00 x45.00	▷	T4	SRF 2.130	R
-52	✓	1		-51	SKIN-AFT	C2	.025x26.00 x50.00	▷	-	SRF 12.207	R
NEW -48	✓	1		-800	SKIN-FWD	A6 ₃	.032x21.00 x45.00	▷	T4	SRF 2.130 SRF 12.207	R
NEW -48	✓	1		-801	SKIN-FWD FLANGE	A6 ₃	.032x5.00 x45.00	▷	T4	SRF 2.130 SRF 12.207	R
NEW	✓	1		-802	OPP - 801	A6 ₃					
NEW -51	✓	1		-805	SKIN-AFT	A9 ₂	.025x21.00 x50.00	▷	-	SRF 12.207	R
NEW -51	✓	1		-803	SKIN-AFT FLANGE	A9 ₂	.025x5.00 x50.00	▷	-	SRF 12.207	R
NEW	✓	1		804	OPP - 803	A9 ₂					
-57	✓	1		-56	SHIM - STA III, 20	C2	.016x1.10x9.70	▷	-	SRF 12.207	R
NEW -56	✓	1		-814	SHIM - STA III, 20	C2	.016x1.10x9.00	▷	-	SRF 12.207	R
NEW -56	✓	2		-815	SHIM - FLANGE STA III, 20	C2	.016x1.10x2.0	▷	-	SRF 12.207	R

REVISE PARTS LIST AS SHOWN ABOVE;

*ADCN REF,

<input checked="" type="checkbox"/> BAC RELEASED	<input type="checkbox"/> KC-135
<input type="checkbox"/> CANCELED BY BAC ADCN	<input checked="" type="checkbox"/> 707
707 STR. PARTS 6-25-7	
CHECKED B. Blakely 4/25/57	
APPROV D J. E. Parsons 4/25/57	

THIS CHG. INCOMPLETE WITHOUT ADCN SHT DWG.

R-5, R-6	1	50-8281
R-3	2	50-8281
R-2, R-4, R-5	3	50-8281
R-4	2A	4-5181
R-3	2A	4-5177
R-12	100	5-25655

REWORK EXISTING PARTS TO BE
INSTALLED.

KC-135 NOT AFFECTED

AIROP. SEC. NO.	QTY. PER.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS			PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
				581-509					2-7000

BAC 24-11-55

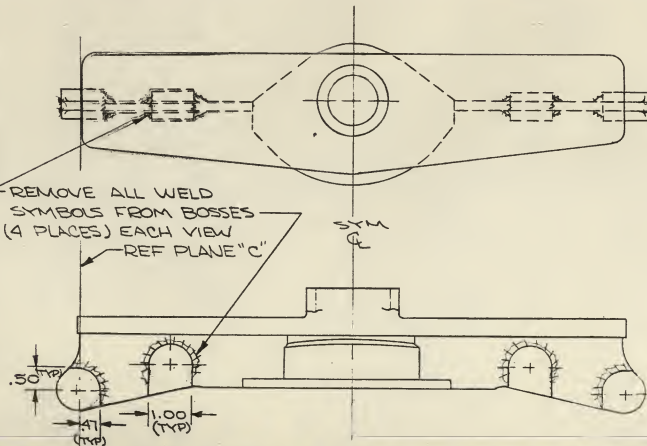
MODEL 707		DWG. REC. CLK. 4-6-62		BOEING AIRPLANE COMPANY		(NOT PROCESS)	
DRAFTED C. ROSS 12/2/57		RELEASE 6-20-57		ADVANCE DRAWING CHANGE NOTICE RE ENG WILL BE CHANGED TO INCLUDE THIS ADEN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION		BRACKET-NAC CONT. UPPER HALF WELD	
CHECKED H. DARTON 12/2/57		S/P GROUP ROHR ENGRG REQUESTED				DWG. TITLE	
STRESS		APPROVED E. B. BAKER 12/2/57		REASON: (MFG FACILITY) TO IMPROVE QUALITY AND REDUCE MFG COSTS BY MACHINING BOSSES.		ADCN	
APPROVED		PROD. INFO.		ISSUE NO. FRR 10275		DRAWING NO. R1-2 65-5459	
APPROVED				CHG. NO. 77 F 79		SHT. -	
PARTS LIST ZONE		REPLACES		ZONE CODE		STOCK SIZE (APPROX. NET)	
REQD		PART NUMBER		NOMENCLATURE		MATERIAL	
						HEAT TREAT	
						FINISH	
						P	

CHG DWG AS SHOWN BELOW

NOTE: CHG VIEWS D4 & 104 TO AGREE

THIS CHG NOT COMPLETE WITHOUT ADCN R1-1

EXISTING PARTS AGREE WITH THIS CHG. PLANNING IS IN ACCORD.



Slater 4/15/57
J. E. Farson 4/12/57

KC-135 NOT AFFECTED

#618

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COUN IND	DWG SHEET NO.
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279 Robot 658 17

MODEL 707	DATE REC. CLK. 5/14/52	BOEING AIRPLANE COMPANY (ATTLE H. WASHINGTON) ADVANCE DRAWING CHANGE NOTICE THE DRAWING WILL BE CHANGED TO INCLUDE THIS ACTION <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: TO PROVIDE FOR INSTL OF J-75 ENGINE PER D.D.M. #45C	NEW		FIG. NO. MD. SPAR. - OUTBD
DRAFTED B. Vorel	5/14/52		ISSUE NO.		DWG. TITLE
CHECKED R. J. Soren	5/14/52		ITEM CHG. NO. 7460		ADCN
STRESS G. Leobert	6/16/52		SEC. NO. 74		DRAWING NO.
APPROVED Donaldson	6/16/52	1-197, 301-1999		ADCN	SHY
APPROVED Donaldson	6/16/52	CHG. EFF.		1	5-34467
PROD. INFO.		2		5-84467	1A
		3		5-84467	1A

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
			-3001	MIDSPAN, INBD FITTING NAC STRUT			MAKE FROM-3		R	

CHANGE DIAMETER OF HOLE (FOR FUSE PIN) FROM 1.0608 TO 1.1244
 CHANGED FINISH IN P/L AS NOTED ABOVE

REMOVE 6 FROM GENERAL NOTES

CHANGE TO READ "..... ARE PARALLEL TO ϕ OF 1.1244 DIA HOLE....."

REASON: FINISH CODE SRF 1.30 IS INACTIVE (ENGRG ERROR)

ADCN R1-2 REPLACES 1

ADCN#2 REPLACES #R-2

CHANGE TAB BLOCK AS SHOWN REASON: TO CALL FOR CORRECT FINISH PER D-17180

74	2	4-5180	707	1 THRU 199	301 THRU 1999	5-84467-3002
74	2	4-5180	707	1 THRU 199	301 THRU 1999	5-84467-3001
74	2	4-5180	707	1 THRU 199	301 THRU 399	5-84467-3002
74	2	4-5180	707	1 THRU 199	301 THRU 399	5-84467-3001

216-15-57

3-54 17

MODEL	707	DWG. REC. CLK.	6/12/58-56
DRAFTED	GE. Woods	DATE	6/12/58
CHECKED	J. Fujioka	DATE	12/15/61
STRESS	Donaldson	DATE	12/13
APPROVED		DATE	

BOEING AIRPLANE COMPANY
ADVANCE DRAWING CHANGE NOTICE
 THE DWG WILL BE CHANGED TO INCLUDE THIS ACTION
☐ DEVIATION ☒ VARIATION
 TO PROVIDE FOR
 REASON: PLUMBING RUNS AS
 PROVEN BY MOCKUP & ELEC
 INSTL.

NEW -		MID-SPAZ INSTALLATION INBOARD NACELLE STRUT	
ISSUE NO.	ADCN	DRAWING NO.	SHT.
CHG. NO.	8	4-5175	1A
SEC. NO.	72	16	4-5175
1 THRU 199 & CHG. EFF. 1-1999			

ARTS LIST ONE	REPLACES	4-5175 -3000	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
▷	NEW	✓	1	-3007	DOU BLER	B6 SA	050X42 7/12.08	1 ▷	-	SEP 2.115	RF
▷		✓	1	90-8692	DOU BLER	DZ SA					
▷	2002	✓	X1	-3003 -2002	WEB						
▷	NEW	(16) → ✓	X2	-3004	BACKING PLATE	DZ SA	040X2.160 DIA	1 ▷	-	SEP 2.115	RF
▷	NEW	✓	1	-3006	BACKING PLATE	CZ SA	040X2.10X4.10	1 ▷	-	SEP 2.115	RF
▷	-3002	✓	X1	-3008 -3002	WEB						

CHANGE P/L AS SHOWN ABOVE:

▷ PRR 10171

(16)

CANCELS ADCN 2

REPLACES ADCN 8

-3005 NOT REQUIRED - CUT OUT HAS
 BEEN RELOCATED BY PRR 10171
 ▷ ITEMS REPEATED FROM ADCN 2 TO
 SHOW DELETION OF -3005

CHGD QUAN. OF -3004 TO (2) IN P/L
 REASON: TO PROVIDE FOR
 CABIN PRESS LINE (SEE SHT 3A)
 CHG. EFF. 1-1999 & 301-1999 ARCH-1B
 CHARGE NO. 95000
 DRAWN BY: WILLARD DALE 6-12-57
 CHECKED: *George* 6/12
 APPROVED: *Donaldson* 6/12
Ref 6-13-7
 PROD. INFO: REWORK EXISTING
 PART

▷ ITEM 7225

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS				PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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6-62

(NOT PROCESS)

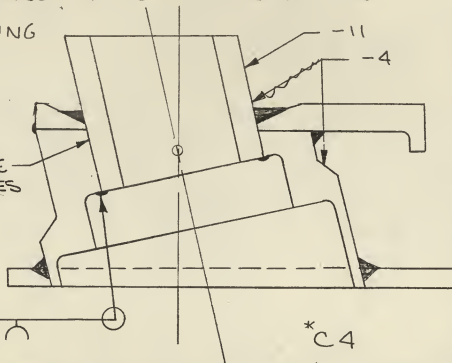
MODEL 707		AC 20-57 DWG. REC. CLK. 2/26/57		BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ADON <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION TO ELIMINATE SPECIAL REASON: TYPE MACHINE OPERATION ON -4 HOUS- ING - (MFG FACILITY)		BRACKET-NAC CONT. UPPER HALF WELD				
DRAFTED C. ROSS 4/25		RELEASE 6-20-57				DWG. TITLE ASST. OF				
CHECKED H. DARTON 12/5/57		B/P GROUP RORR ENGRG REQUESTED		ISSUE NO. PRR 10275 CHG. NO.		ADCN R-1 65-5457 -				
STRESS Geo. Pickens 12/5/57		APPROVED <i>[Signature]</i> 4/24/57		SEC. NO. 77 & 79						
APPROVED <i>[Signature]</i>		PROD. INFO.		CHG. EFF. 1 THRU 4						
PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
		✓	3	-10	BOSS	B3 1.00 DIA X .34	4			R
NEW		✓	1	-11	TUBE	B5 2.00 DIA X .2	4			R

CHG P/L AS SHOWN ABOVE & VIEW TO SHOW
-11 EXTENDING THRU -4 AS SHOWN BELOW

*CHG CORRESPONDING
VIEWS TO AGREE.

NOTE: THIS CHG
NOT COMPLETE,
WITHOUT ADON'S
R1-2

*ADD LINE
BOTH SIDES



*ADON REF

<input checked="" type="checkbox"/> BAC RELEASED	<input type="checkbox"/> KC-135
<input type="checkbox"/> CANCEL BY BAC REC.	<input checked="" type="checkbox"/> 707
CHECKED: <i>[Signature]</i> 4/15/57	
CHECKED: <i>[Signature]</i> 6/17/57	
APPROV. D: <i>[Signature]</i>	

▷ EXISTING PARTS AGREE WITH THIS CHG. PLANNING IS IN ACCORD,
KC-135 NOT AFFECTED

APR 6/1/58

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG. SHEET NO.
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9-23 / T (NOT PROCESS)

MODEL 707	27-7-8-57 DWG. REC. CLK. 907857	<div style="text-align: center;"> BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE <small>THE DWG WILL BE CHANGED TO INCLUDE THIS ADDN</small> <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: SPEC. NO. INCORRECT. (2) RADIi REQUIRED FOR CASTING OMITTED FROM DWG (ENGRG ERROR) </div>		<div style="text-align: center;"> FLANGE-TURBINE INLET DUCT TURBO- DWG. TITLE COMPRESSION </div>						
DRAFTED C. ROSS 7/2/57	RELEASE 7-8-57 100			ISSUE NO. ITEM 76260	ADCN	DRAWING NO. R1-1 69-3369	SHT. -			
CHECKED DARTON 7/2/57	B/P GROUP ENGRG REQUESTED	SEC. NO. 76	CHG. NO.							
STRESS 7/2/57		1 THRU 199 301 THRU 1999								
APPROVED [Signature]		CHG. EFF.								
APPROVED [Signature]	PROD. INFO.									
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P

ADD NOTES TO CASTING NOTES AS SHOWN BELOW

CORNER RADIUS .01
FILLET RADIUS .03

CHG FLAG NOTE IN GENERAL NOTES AS SHOWN BELOW

2 INSPECT PER MIL-C-6121 PER D-14841

3 INSPECT PER MIL-C-6021 B PER D-14841

<input checked="" type="checkbox"/> DRAWING RELEASED	<input checked="" type="checkbox"/> CHG FLAG NOTE
CHECKED [Signature]	APPROVED [Signature]

EXISTING PARTS & ASSYS MAY BE USED WITHOUT RWK - PLANNING IN ACCORD



KC-135 NOT AFFECTED



AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG. SHEET NO.
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2-54 17

A
D
C
N

MODEL	707	577-8-57 DWG. REC. CLK	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE <small>THE DWG. WILL BE CHANGED TO INCLUDE THIS ADDN</small> <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: TO USE MATERIAL AVAILABLE.		ISSUE NO.	GUIDE ASSY LOCK OUT ROD			
DRAFTED	R. HARDING 7-257	927-8-57 RELEASE			DWG. TITLE	THRUST REVERSER	ADCN	DRAWING NO.	SHT.
CHECKED	D. Corley 7-3-57	2-8-760 R/P GROUP			ITEM: 7822	2	69-3545	-	
STRESS		4-4400			CHG. NO.				
APPROVED	R. Pearson 7-3-7	REQUESTED	SEC NO.						
APPROVED		PROD. INFO.	CHG. EFF.						

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
			-1	HOUSING		1.20X2.20X2.20		-	F8.05	T
			-1	HOUSING		1.20X2.20X2.20		-	F8.05	T

CHANGE PARTS LIST AS ABOVE;
 ADD  TO GENERAL NOTES AS BELOW:
 CRES BAR, AISI 303, PER MIL-S-7720
 COMP FM, COND. A
 OPTIONAL:
 CRES PLATE, AISI 321 OR 347, PER MIL-S-6721
 ANNEALED.

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG. SHEET NO.

5-48-37 REPRODUCIBLE TO IPD ONLY

MODEL 107	DWG. REC. CLK 87-7-8-57
DRAFTED D. KREINER	RELEASE 7-8-57
CHECKED S. Wood	B/P UNIT 7-8-57
STRESS W. Bink	PRODUCTION REQUESTED I.P.D.
APPROVED [Signature]	PROD INFO
APPROVED [Signature]	SHOP INFO
APPROVED	DCR No. 1279

BOEING AIRPLANE COMPANY
SEATTLE 14, WASHINGTON
DRAWING DEPARTURE AUTHORIZATION
THE DWG WILL NOT BE CHANGED
REASON: TO FACILITATE
MANUFACTURE

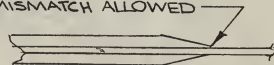
ISSUE No.	BEAM-SUPPORT, DWG TITLE THRUST REVERSER	
SEC. No. 78	DDA No.	DRAWING No.
CHG. No. 7812	69-5530	
	2	69-3530
ALL		
CHG EFF		

PARTS LIST ZONE	REPLACES	REQD.	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	FINISH	HEAT TREAT	P
		-1	69-3530	BEAM		50 X 12.18				
	69-3530	-	69-3530-1	BEAM, ASSY OF		50 X 12.18				
		✓ -1	-2	BEAM		50 X 12.18				
		✓ 2	-3	FLANGE		50 X 12.18				

② NOTE: ADDED TO P/L AS SHOWN ABOVE
ADDED OPTIONAL ASSY METHOD, AS SHOWN
ADDED DIM. TOLERANCES & BRAZE NOTE
B-B -3 (2 PLACES)

② (HASTEDY W. INERT TUNGSTEN ARC)
TACKWELD THIS AREA, APPROX. 2" SPACING & ENDS.
GRIND FLUSH AFTER BRAZING.

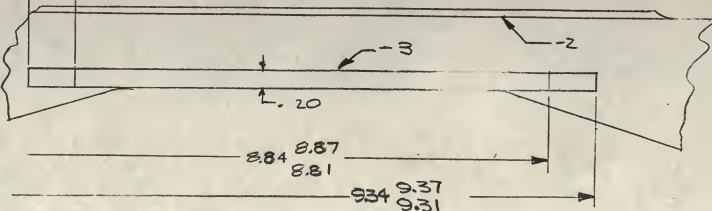
.03 MISMATCH ALLOWED



A-A

FURNACE BRAZE ALL MATING SURFACES
& INSPECT PER AMS 2675A WITH AMS 4775
HEAT RESISTANT BRAZING ALLOY.

3.84 3.87
3.81
3.34 3.37
3.31



REPLACES DDA#1

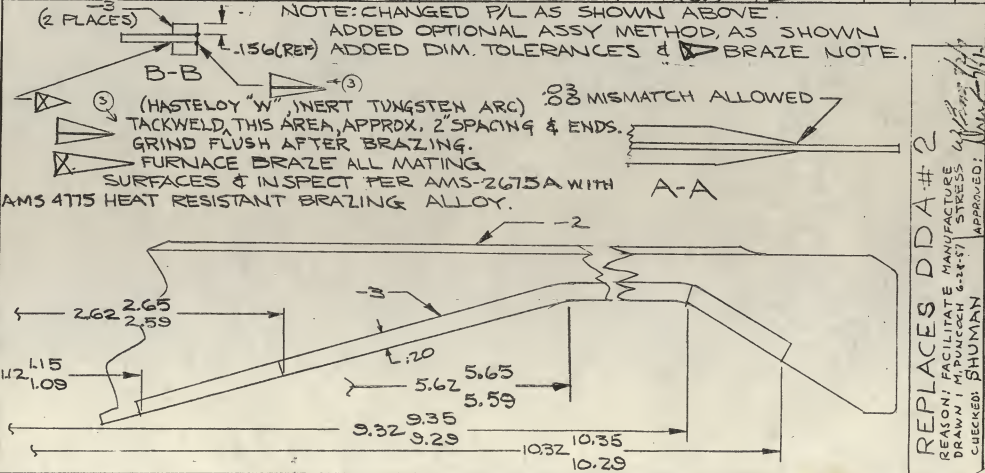
REASON: FACILITATE MANUFACTURE
DRAWN: BUNCOCH 6-28-57
CHECKED: [Signature]
APPROVED: [Signature] 7-22-57
STRESS W. Bink

5-57 3T

REPRODUCIBLE TO IPD ONLY

MODEL 107	DWG REC CLK M 7-8-57	BOEING AIRPLANE COMPANY SEATTLE 14, WASHINGTON		ISSUE No.	BEAM - SUPPORT,	
DRAFTED D. KREINER	RELEASE 9-7-57	DRAWING DEPARTURE AUTHORIZATION		SEC. No. 78	DWG TITLE THRUST REVERSER	
CHECKED S. Woods	B/P UNIT 100	THE DWG WILL NOT BE CHANGED		CHG. No. 7812	2	69-3532
STRESS 10/1/57	PRODUCT 10N REQUESTED 12.15.	REASON: TO FACILITATE MANUFACTURE			3	69-3532
APPROVED 10/1/57	PROD INFO			ALL		
APPROVED 10/1/57	SHOP INFO			CHG EFF		
APPROVED	DCR No. 1280					

PARTS LIST ZONE	REPLACES	-1	REQD.	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	FINISH	HEAT TREAT	P
				69-3532	BEAM		38 X 12.18				
	69-3532	-	-	69-3532-1	BEAM, ASSY OF		2.02				
		✓	1	-2	BEAM		17 X 12.18				
		✓	2	-3	FLANGE		5 X 20				



REPLACES DDA #2

REASON: FACILITATE MANUFACTURE

DRAWN: M. PUNCOCH 6-28-57

CHECKED: SHUMAN

APPROVED:

MODEL	DWG REC CLK# 78-57
DRAFTED S. K. EIDER	RELEASE 7-8-57
CHECKED S. W. JACOBI	B/P UNIT 7-9-57 M8
STRESS W. J. JACOBI	PRODUCTION
APPROVED [Signature]	PROD INFO
APPROVED [Signature]	SHOP INFO
APPROVED	DCR No. 1278

ISSUE NO.	BEAM-SUPPORT ₇	
SEC. No. 78	DWG TITLE	THRUST REV.
	DDA No.	DRAWING No.
CHG. No. 7812	2	68-3533-
	3	69-3533
ALL		
CHG. EEE		

PARTS LIST ZONE	REPLACES			REQD.	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	FINISH	HEAT TREAT	P
		-3	-2									
					69-3533	BEAM		80X13.2X25				
					69-3533-1	BEAM		30X17.2X2.62				
69-3533				-	69-3533-2	BEAM, ASSY OF						
69-3533-1				-	69-3533-3	BEAM, ASSY OF						
			✓	2	-4	FLANGE		18 X 120				
		✓	✓	1	-5	BEAM		80 X 12-18				
		✓	✓	2	-6	FLANGE		18 X 120				
								X 2.02				
								X 7.0				

ADDED DIM. TOLERANCES & FURNACE BRAZE NOTE, AS SHOWN
CHANGED DWG TITLE TO READ "BEAM-SUPPORT, ASSY OF."

5
1051 (REF)
-48.6 (2 PLACES)
B-B
1.00
1.18 REF
FURNACE BRAZE ALL MATING SURFACES & INSPECT PER AMS 2675A WITH AMS 9775 HEAT RESISTANT BRAZING ALLOY.
A-A
5
MISMATCH ALLOWED
TACKWELD (HASTELOY "W," INERT TUNGSTENARC) THIS AREA, APPROX. 2" SPACING @ ENDS. GRIND FLUSH AFTER BRAZING.

6
4
1.18
365 368 362
440 4.43 4.57
540 543 537
615 618 612
932 9.35 10.35 10.32 10.28

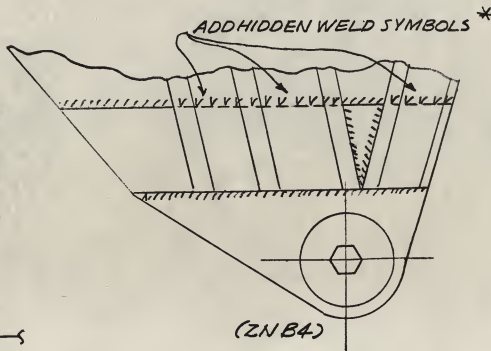
REPLACES DDA # 2
REASON: FACILITATE MANUFACTURE
DRAWN: RUMCOSH, 6-28-57, CHECKED: [illegible]

REPLACES DDA #2
REASON: FACILITATE MANUFACTURING

MODEL 707-120	EN 7-15-57 DWG. REC. CLK. 7-17-57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ADDN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: WELD CONTINUITY OMITTED & DIM. INCORRECTLY CALLED OUT (ENGGRS ERROR)		ISSUE NO. ITEM 7815 CHG. NO.	CLAMSHELL INSTL THRUST REVERSER DWG. TITLE					
DRAFTED E15	7-22-57	RELEASE 7-15-57 B/P GROUP		ADCN	DRAWING NO.	SHT.				
CHECKED C. White	8/2/57	ROHR REQUESTED		78	R1 65-4253	-				
STRESS -				ALL						
APPROVED R. Aker	8/24/57	PROD. INFO.		CHG. EFF.						
APPROVED C. J.	8/24									
PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P

IN ZN A7 & B4, REVISE DWG AS SHOWN

APPROVED	
Chkd. By: <i>C. White</i>	Date 7-15
Appvd. By: <i>R. Aker</i>	Date 7-11-57
Boeing Airp. Co.-Transport Div.	



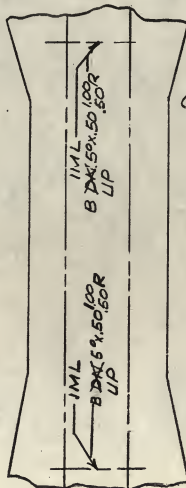
*ADCN REF.

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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2-52 27 NOT PROCESS

MODEL 707-120		217-15-57 DWG. REC. CLK.	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ADN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: BEND DIRECTION INCORRECTLY CALLED OUT FOR - 4 (ENKOR ERROR)		ISSUE NO.	DWG. TITLE STRUT EXHAUST PLUG ASSY OF		ADCN	DRAWING NO.	SHT.
DRAFTED EIS	6-22-57	RELEASE 7-15-57 MIB			ITEM 7811	R3	65-4286			2
CHECKED E. White	6/24/57	5/2 GROUP 120412			CHG. NO.					
STRESS		LOFT REQUESTED			SEC. NO. 78					
APPROVED R. Ahern	6/23/57	NOTE NO PARTS MFGD			ALL					
APPROVED CW	6/24	PROD. INFO.			CHG. EFF.					
PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P

IN ZNA2 C2, REVISE BEND
DATA FOR - 4 AS SHOWN



APPROVED	
Chkd. By: <i>[Signature]</i>	Date: 7-11
App'd By: <i>[Signature]</i>	Date: 7-11-57
Boeing Airp. Co.-Transport Div.	

*ADCN REF

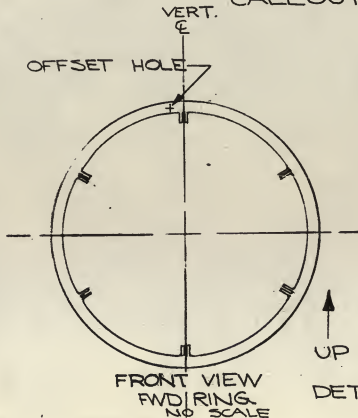
AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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2-53 2T

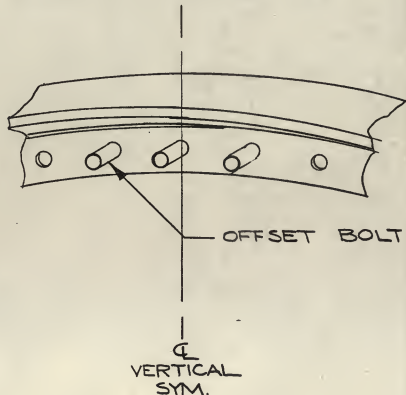
ADCN

THRUST MODEL REVERSER		917-15-57 DWG. REC. CLK	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG. WILL BE CHANGED TO INCLUDE THIS ADDN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: TO INDICATE OFFSET HOLE & BOLT.		A ISSUE NO. 7812 CHG. NO. 2 SEC. NO. CHG. EFF.		CASCADE AND DEFLECTOR, THRUST DWG. TITLE REVERSER ASSY OF			
DRAFTED D KREINER 7-1-7		907-15-57 RELEASE 7-15-57 S/P GROUP R. Pearson 6-2000 REQUESTED			ADCN		DRAWING NO. 65-4291		BMT. 2	
CHECKED 1. Greengo 7/11/57										
STRESS										
APPROVED P. S. W. Pearson 7-11										
APPROVED			PROD. INFO.							
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P

IN ZONE C3: ADD OFFSET BOLT CALLOUT.
IN ZONE A4: ADD OFFSET "HOLE CALLOUT", DIRECTION
INDICATOR & "FRONT VIEW" TO FWD RING
CALLOUT.



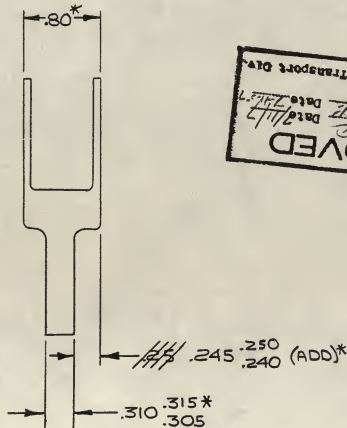
UP
DETAIL II



AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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MODEL	707-120	67-15-57 DWG. REC. CLK.	BOEING AIRPLANE COMPANY		ISSUE NO.		LUG STRUT TIE - EXHAUST PLUG		DWG. TITLE	
DRAFTED	E. WHITE	6/21/57 7-15-57 RELEASE	ADVANCE DRAWING CHANGE NOTICE		ITEM 7811		ADCN		DRAWING NO.	
CHECKED	EIS	6/21/57 S/P GROUP	<input type="checkbox"/> THE DWG. WILL BE CHANGED TO INCLUDE THIS ADDN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION		CHG. NO.		R/		66-3305	
STRESS		ROHR REQUESTED	REASON: PRESENT DIMENSION		SEC. NO. 78					
APPROVED	P. Ahern	6/24/57	PERMITS OUT-OF-TOLERANCE		ALL					
APPROVED	G. King	6/21/57	MISMATCH UPON ASSY.		CHG. EFF.					
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P

REVISE DIMENSION AS SHOWN.



* ADCN REF.

▷ NONE. NO PARTS
MADE.

APPROVED

Chd. By: *[Signature]* Date: *7/1/77*

Apprd. By: *[Signature]* Date: *7/1/77*

Boeing Airp. Co. - Transport Div.

[illegible]

2-55 37

NOT PROCESS

ADCN

MODEL	707	DWG. REC. CLK.	D17-15-57
DRAFTED	EIS	RELEASE	707-15-57
CHECKED	E. White	DATE	6-17-57
STRESS	R.L. Jenkins	BY GROUP	1-15-57, 1110
APPROVED		TOOLING	419-57
APPROVED	Z. Crowl	REQUESTED	6/18/57
		WONE - NO PARTS	
		MFGD.	
		PROD. INFO.	

BOEING AIRPLANE COMPANY

ADVANCE DRAWING CHANGE NOTICE

THE DWG WILL BE CHANGED TO INCLUDE THIS ADDN

☐ DEVIATION ☒ VARIATION

REASON: TO PROVIDE OPTIONAL METHOD OF FABRICATION

(MEG FACILITY)

ISSUE NO.		DWG. TITLE	
ITEM 7813		RING SLEEVE DOOR SEAL	
CHG. NO.	ADCN	DRAWING NO.	SHT.
		R1	66-3307 -
SEC. NO.	78		
1-199			
CHG. EFF.			

PARTS LIST ZONE	REPLACES	READ	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
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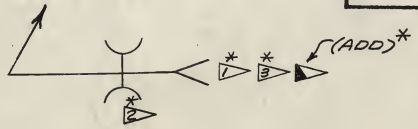
REVISE DWG & ADD TO GENERAL NOTES AS SHOWN

APPROVED

Chkd. By: PURLOCH Date: 1-12-57

Approved. By: [Signature] Date: 1-11-57

Boeing Airp. Co.-Transport Div.



▶ FLASHWELD PER AMS 7490, OPTIONAL ← (ADD)*

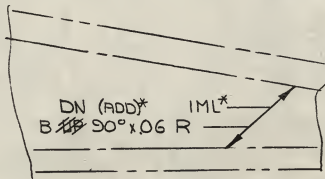
* ADCN REF.

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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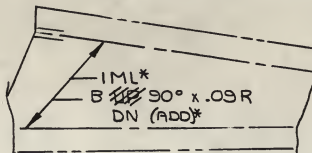
MODEL 707-120	877-K-57 DWG. REC. CLK.	BOEING AIRPLANE COMPANY		7	RIB-SLEEVE DOOR, THRUST REVERSER	
DRAFTED E. WHITE	7/1/57 RELEASE 775-37815	ADVANCE DRAWING CHANGE NOTICE		ISSUE NO.	ADCN	DRAWING NO.
CHECKED EIS	7/1/57 B/P GROUP	<input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: FLANGE BEND INFORMATION DOES NOT AGREE WITH ASSY DWG. (ENGRG ERROR)		CHG. NO.	ITEM 7813	R-1 69-3549
STRESS -	ROHR REQUESTED			SEC. NO.	78	
APPROVED <i>R. O'Hern</i>	7/2/57				ALL	
APPROVED <i>Ei</i>	7/1/57			CHG. EFF.		

PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
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REVISE BEND INFORMATION AS SHOWN BELOW.



69-3549-1, -2 OPP*



* ADCN REF.

▷ NONE. NO PARTS MADE.

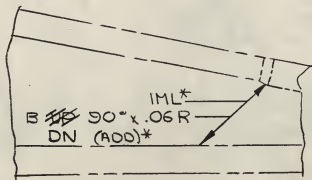
69-3549-3*

APPROVED	
Chkd. By: <i>Paul G. M.</i>	Date: 7-10-57
Apprvd. By: <i>W. H. H.</i>	Date: 7-11-57
Boeing Airp. Co.-Transport Div.	

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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MODEL 707-120	7/1/57	57-7-15-57 DWG. REC. CLK.	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ACTION <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION		7	R113-SLEEVE DOOR THRUST REVERSER DWG. TITLE	
DRAFTED E. WHITE	7/1/57	7-15-57 RELEASE	REASON: FLANGE BEND INFORMATION DOES NOT AGREE WITH ASSY DWG. (ENGRG ERROR)		ISSUE NO.	ADCN	DRAWING NO.
CHECKED EIS	7/1/57	7-15-57 S/P GROUP			ITEM 7813	R-1	69-4912
STRESS -		ROHR			CHG. NO.		
APPROVED R. Ahern	7/2/57	REQUESTED			SEC. NO. 78		
APPROVED G. S.	7/1/57	PROD. INFO.			ALL		
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL
							HEAT TREAT
							FINISH
							P

REVISE BEND INFORMATION AS SHOWN BELOW.

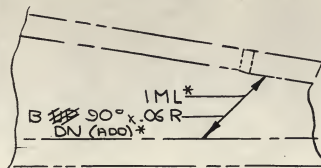


69-4912*

APPROVED	
Chkd. By: <i>W. L. G. H.</i>	Date: 7-10-57
Appr'd. By: <i>R. Ahern</i>	Date: 7-11-57
Boeing Airp. Co.-Transport Div.	

* ADCN REF

▶ NONE - NO PARTS MADE.



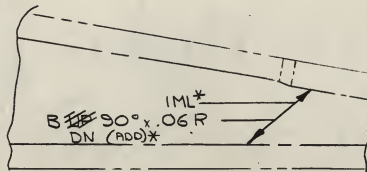
69-4912-1*

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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2-53 27

MODEL 707-120		DWG. REC. CLK. 7-15-57	BOEING AIRPLANE COMPANY <h1 style="margin: 0;">ADCN</h1> <p style="font-size: small; margin: 0;">THE DWG WILL BE CHANGED TO INCLUDE THIS ADCN</p> <div style="display: flex; justify-content: space-around;"> <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION </div>		<h2 style="margin: 0;">#</h2>	RIB-SLEEVE DOOR THRUST REVERSER	
DRAFTED E. WHITE	7/1/57	RELEASE 7-15-57 RLB			ISSUE NO.	DWG. TITLE	
CHECKED ES	7/1/57	S/P GROUP			ITEM 7813	R-1 69-4913 -	
STRESS -		ROHR REQUESTED			CHG. NO.		
APPROVED R. Ahern	7/2/57		REASON: FLANGE BEND INFORMATION DOES NOT AGREE WITH ASSY DWG. (ENGRG ERROR)		SEC. NO. 78		
APPROVED Gin	7/1/57	PROD. INFO.			ALL		
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL
							HEAT TREAT
							FINISH
							P

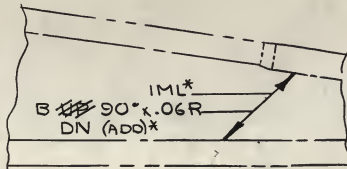
REVISE BEND INFORMATION AS SHOWN BELOW.



69-4913*

* ADCN REF

NONE. NO PARTS MADE



69-4913-1*

APPROVED

Chkd. By: *[Signature]* Date: 7-10-57

Appr'd. By: *[Signature]* Date: 7-11-57

Boeing Airp. Co.-Transport Div.

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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2-52

17

A D C N

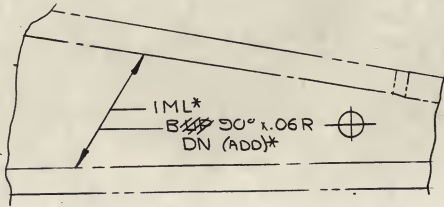
MODEL 707-120		577-15-57 DWG. REC. CLK.		BOEING AIRPLANE COMPANY (STAFF) IN WASHINGTON ADVANCE DRAWING CHANGE NOTICE THE DWG. WILL BE CHANGED TO INCLUDE THIS ACTION <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: FLANGE BEND INFORMATION DOES NOT AGREE WITH ASSY DWG. (ENGRG ERROR)		# ISSUE NO. ITEM 7813 CHG. NO. SEC. NO. 78 ALL CHG. EFF.		RIG-SLEEVE DOOR THRUST REVERSER													
DRAFTED E. WHITE		7/1/57						DWG. TITLE		DRAWING NO.		SHT.									
CHECKED EIS		7/1/57						R-1		69-4914		-									
STRESS																					
APPROVED R. Ahern		7/2/57		ROHR																	
APPROVED G. S.		7/1/57		REQUESTED																	
APPROVED				PROD. INFO.																	
PARTS LIST ZONE		REPLACES		REQD.		PART NUMBER		NOMENCLATURE		ZONE CODE		STOCK SIZE (APPROX. NET)		MATERIAL		HEAT TREAT		FINISH		P	

REVISE BEND INFORMATION AS SHOWN BELOW.

APPROVED

 Chkd. By: PUNLOSH Date: 7-12-57
 Apprd. By: G. S. Date: 7-11-57

Boeing Airp. Co.-Transport Div.



NONE. NO PARTS MADE.

WORK PRESS. PSI		NUMBER		REQD		NUT		SLEEVE		REQD		ZONE		SHT		TUBE OD		WALL THICK		MATERIAL		HEAT TREAT		FINISH		TUBING IDENTIFICATION		TYPE ENDS		MIN STOCK LGTH	
		TUBE ASSY				END FITTINGS PER TUBE ASSY						ZONE CODE																			

MODEL 707	6-10-57	26620-57	BOEING AIRPLANE COMPANY		A	CASCADE & DEFLECTOR THRUST REVERSER		
DRAFTED S. Wood	6-10-57	DWG. REC. CLK. B16120157	ADVANCE DRAWING CHANGE NOTICE		ISSUE NO.	ADCN	DRAWING NO.	SHT.
CHECKED S. H. FELD	6/10/57	RELEASE 6-21-5718	THE DWG WILL BE CHANGED TO INCLUDE THIS AD CN		CHG. NO.	2	65-4291	1
STRESS W. King	6/10/57	S/P GROUP	<input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION		SEC. NO.	78		
APPROVED [Signature]	6/10/57	BENNETT	REASON: TO CLARIFY DWG					
APPROVED Z. F. Bennett	6/17/57	REQUESTED			CHG. EFF.	ALL		
		PROD. INFO.						

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
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IN NOTES REVISE 3 AS SHOWN:

3 -1 ONLY
FURNACE BRAZE ---
(a) ---

(b) ~~EXTERIOR INSPECTION SHALL~~ ---

(b) WITH BRAZING ALLOY APPLIED TO ONE SIDE

ADD UNDER SCORED PHRASE ADCN(REF) → OF THE JOINT BEFORE BRAZING, EXTERIOR INSPECTION SHALL SHOW A COMPLETE LINE OF BRAZE ALLOY ON BOTH SIDES OF COMPLETED JOINT.

(C) IN THE EVENT SUBSEQUENT BRAZING IS REQD TO MEET REQUIREMENTS OF (b) OFF SIDE BRAZING IS ALLOWED; AND X-RAY INSPECTION SHALL BE EMPLOYED TO ESTABLISH COMPLIANCE WITH (a)

AIRP. SEC. -NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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THRUST REVERSE

3.19 6T

NOT PROCESS

MODEL	707	466-20-57
KRISTOFFERSON	6-10	DWG. REC. CLK
DRAFTED	-57	26-57
CHECKED	S. H. FELD	RELEASE
STRESS		6.20.5785.
APPROVED		B/P GROUP
		BENNETT
		6-7000
		REQUESTED
APPROVED	7/1/57	PROD. INFO.

BOEING AIRPLANE COMPANY
ADVANCE DRAWING CHANGE NOTICE
 THE DWTG WILL BE CHANGED TO INCLUDE THIS ADDN
☐ DEVIATION ☒ VARIATION
 REASON: TO COMPLY WITH
 A STANDARDS CHANGE.

EXHAUST PLUG INSTALLATION		
ISSUE NO.	DWG. TITLE	
ITEM 7854	ADCN	DRAWING NO.
CHG. NO.	2	65-3617
SEC. NO.	1	65-3617
CHG. EFF.		

PARTS LIST ZONE	REPLACES	REGD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
		✓ 4	BAC B30 BG -5-10A BAC B30 BG -5C-10A	BOLT						
		✓ 16	BAC B30 BG -1-4A BAC B30 BG -4C-2A	BOLT						
		-1 3								

SHT 1: CHANGE P/L AS SHOWN ABOVE, IN ZONE C4
 CHANGE BOLT CALLOUTS AS SHOWN:

Y ~~BAC B30 BG-5-10A~~ ~~BAC B30 BG-4-2A~~
 BAC B30 BG-5C-10A BAC B30 BG-4C-2A

SHT 2: IN ZONES B8, B6 & DG CHANGE BOLT
 CALLOUT AS SHOWN:

~~BAC B30 BG-4-2A~~
 BAC B30 BG-4C-2A

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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REPRODUCTION TO 17000000

00000000

3-48-27

NOT PROCESS

MODEL	707-120	266-20-57 DWG. REC. CLK.
DRAFTED	E. WHITE	266-20-57 RELEASE
CHECKED	EIS	6-20-57
STRESS	Blakely	B/P GROUP
APPROVED		LOFT REQUESTED
APPROVED		PROD. INFO.

BOEING AIRPLANE COMPANY

ADVANCE DRAWING CHANGE NOTICE

THE DWG WILL BE CHANGED TO INCLUDE THIS ADDN

☐ DEVIATION ☒ VARIATION

REASON: TO PROVIDE A STATION REFERENCE.
(DWG CLARIFICATION)

STRUT EXHAUST PLUG, ASSY OF	
ISSUE NO.	ADCN
CHG. NO.	DRAWING NO.
ITEM 7811	R-1 65-4286
SEC. NO. 78	
1-199	
301-1999	

REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
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LABEL GRID LINE FOR STATION REFERENCE AS SHOWN BELOW.

☒ BAC RELEASED ☐ KC-135

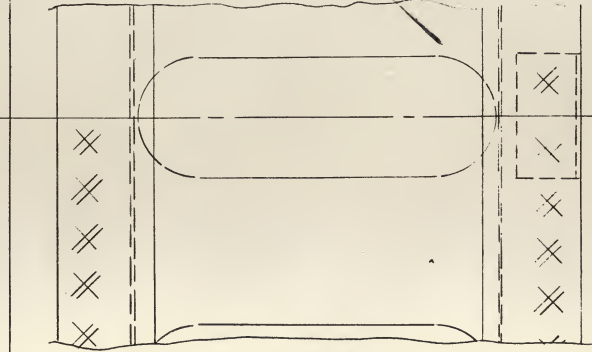
CAUTION: DO NOT ADD: [] 707

CHECKED Blakely 4/4/57

CHECKED J. E. Larson 4/17/57

N. STA 220 REF (ADD)*

SYM* (EXCEPT AS NOTED)



* ADCN REF

NONE, NO PROD. PARTS MADE.

(ZN B4)*

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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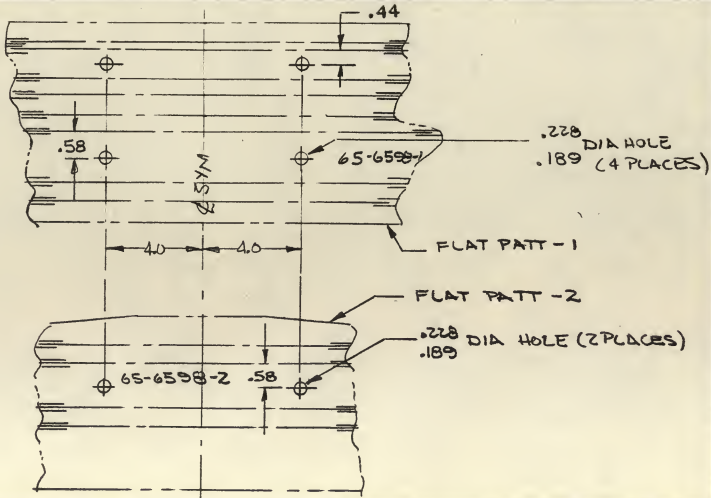
ADCN

4-48 17 Rev 1

REPRODUCIBLE TO PD & BOMR

MODEL	707	266-2057	BOEING AIRPLANE COMPANY SEATTLE 14, WASHINGTON		STIFFENERS CLAMSHELL		DWG. TITLE		THRUST REV.	
DRAFTED	S. Wood	DWG. REC. CLK. R76-20-57	ADVANCE DRAWING CHANGE NOTICE		ISSUE NO.	ADCN	DRAWING NO.	SHT.		A D C N
CHECKED	Rindexter	RELEASE 6-20-57 EC	THE DWG WILL BE CHANGED TO INCLUDE THIS ADDN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION		CHG. NO.	1	65-6598	2		
STRESS	W. Braz	B/P GROUP RORR	REASON: TO PROVIDE GAS VENT HOLES.		SEC. NO.	78				
STANDARDS	Dunn	REQUESTED			CHG. EFF.	ALL				
APPROVED	J. L. Bennett	6/17/57	PROD. INFO.							
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P

ADD HOLES
TO FLAT PATTERNS
OF -1 & -2 AS
INDICATED.



WORK PRESS. PSI	NUMBER	REQD	NUT	SLEEVE	REQD	ZONE	SHT	TUBE OD	WALL THICK	MATERIAL	HEAT TREAT	FINISH	TUBING IDENT- IFICATION	TYPE ENDS	MIN STOCK LGTH
	TUBE ASSY		END FITTINGS PER TUBE ASSY			ZONE CODE									

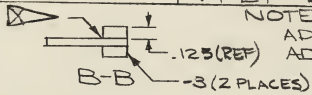
4-51 2T REPRODUCIBLE TO IPD ONLY

MODEL 707	726-20-37
DRAFTED C-67 D. KREINER	DWG REC CLK 906-20-07
CHECKED S. Wood 6-77	RELEASE 6-20-5788
STRESS W. B. 6-77	B/P UNIT PRODUCTION REQUESTED I.P.D.
APPROVED [Signature]	PROD INFO
APPROVED [Signature]	SHOP INFO
APPROVED	DCR No. 1279

BOEING AIRPLANE COMPANY
SEATTLE 14, WASHINGTON
DRAWING DEPARTURE AUTHORIZATION
THE DWG WILL NOT BE CHANGED
REASON: TO FACILITATE
MANUFACTURE

ISSUE No.	BEAM-SUPPORT,	
SEC. No. 78	DWG TITLE THRUST REVERSER	DRAWING No.
CHG. No. 7812	1	69-3530
ALL		
CHG EFF		

PARTS LIST ZONE	REPLACES	REQD.	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	FINISH	HEAT TREAT	P
		-1	69-3530	BEAM		50 X 12.18				
	69-3530	-	69-3530-1	BEAM, ASSY OF		72.87				
		✓ -1	-2	BEAM		.06 X 20				
		✓ 2	-3	FLANGE		15 X 20				

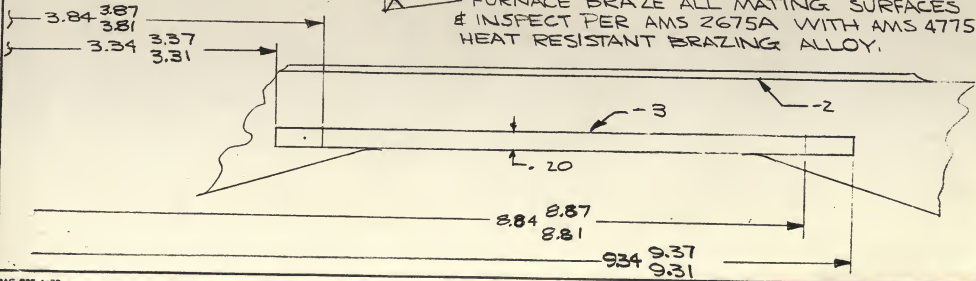


NOTE: ADDED TO P/L AS SHOWN ABOVE
ADDED OPTIONAL ASSY METHOD, AS SHOWN
ADDED DIM. TOLERANCES & BRAZE NOTE

.03 MISMATCH ALLOWED
.00



FURNACE BRAZE ALL MATING SURFACES
& INSPECT PER AMS 2675A WITH AMS 4775
HEAT RESISTANT BRAZING ALLOY.



4-52 2T

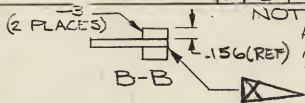
REPRODUCIBLE TO IPD ONLY

MODEL 707	DWG REC CLK 26-20-57
DRAFTED D. KREINER	RELEASE 6-20-5782
CHECKED S. WOOD	B/P UNIT
STRESS 10/1/57	PRODUCT 10A REQUESTED I.P.D.
APPROVED [Signature]	PROD INFO
APPROVED [Signature]	SHOP INFO
APPROVED	DCR No. 1280

BOEING AIRPLANE COMPANY
SEATTLE 14, WASHINGTON
DRAWING DEPARTMENT AUTHORIZATION
THE DWG WILL NOT BE CHANGED
REASON: TO FACILITATE
MANUFACTURE

ISSUE No.	BEAM - SUPPORT, DWG TITLE THRUST REVERSER	
SEC. No. 78	DDA No.	DRAWING No.
CHG. No. 7812	2	69-3532
ALL		
CHG EFF		

PARTS LIST ZONE	REPLACES		REQD.	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	FINISH	HEAT TREAT	P
		-1		69-3532	BEAM		58 X 12.18 2.02				
	69-3532	-	-	69-3532-1	BEAM, ASSY OF						
		✓ 1		-2	BEAM		57 X 12.18 2.02				
		✓ 2		-3	FLANGE		58 X 20				

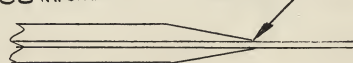


NOTE: CHANGED P/L AS SHOWN ABOVE.

ADDED OPTIONAL ASSY METHOD, AS SHOWN

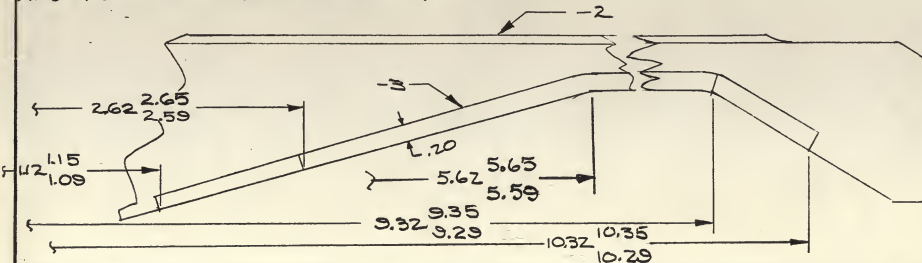
ADDED DIM. TOLERANCES & BRAZE NOTE.

.03 MISMATCH ALLOWED



FURNACE BRAZE ALL MATING SURFACES & INSPECT PER AMS-2675A WITH AMS 4775 HEAT RESISTANT BRAZING ALLOY.

A-A



THRUST MODEL REVERSER	266-20-57
DRAFTED D. KREINER	DWG REC CLK 26-20-54
CHECKED S.Wood	RELEASE 6-26-54
STRESS W. Smith	B/P UNIT PRODUCTION REQUESTED LRD
APPROVED [Signature]	PROD INFO
APPROVED A.S. Brown	SHOP INFO
APPROVED	DCR No. 1278

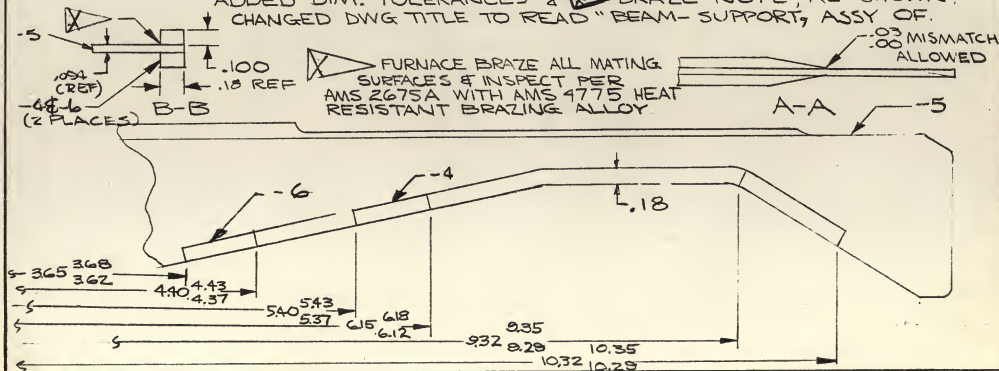
BOEING AIRPLANE COMPANY
SEATTLE 14, WASHINGTON

DRAWING DEPARTURE AUTHORIZATION
THE DWG WILL NOT BE CHANGED
REASON: TO FACILITATE
MANUFACTURE.

ISSUE No.	BEAM-SUPPORT,	
SEC. No. 78	DWG TITLE	THRUST REV.
CHG. No. 7812	DDA No.	DRAWING No.
	2	69-3533
ALL		
CHG EFF		

PARTS LIST ZONE	REPLACES	REQD.	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	FINISH	HEAT TREAT	P
	3-2		69-3533	BEAM		30X12.2X2.0				
			69-3533-2	BEAM		30X12.2X2.0				
			69-3533-3	BEAM, ASSY OF						
			69-3533-4	FLANGE		18 X 120				
			69-3533-5	BEAM		18 X 12.18				
			69-3533-6	FLANGE		18 X 120				

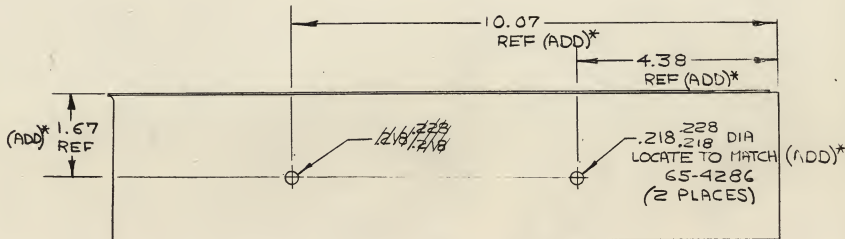
NOTE: CHANGED P/L AS SHOWN ABOVE.
ADDED OPTIONAL ASSY METHOD, AS SHOWN
ADDED DIM. TOLERANCES & BRAZE NOTE, AS SHOWN.
CHANGED DWG TITLE TO READ "BEAM-SUPPORT, ASSY OF."



4.65 / T NOT PROCESS

MODEL 707-120		206.3057	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ADEN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: HOLE PATTERN DOES NOT COINCIDE WITH ASSY DWG. (ENGRG ERROR)		STRUT FAIRING UPPER EXHAUST PLUG ASSY OF DWG. TITLE					
DRAFTED E. WHITE		5/23/57			DWG. REC. CLK. 206-20-57 RELEASE 6-20-57 S/P GROUP TOOLING REQUESTED PROD. INFO.	ISSUE NO. 17811 CHG. NO. 78 SEC. NO. 1-199 # 301-1999 CHG. EFF.	ADEN DRAWING NO. R-1 69-3541 SMT. -			
CHECKED EIS		5/24/57								
STRESS <i>Bellevue</i>		5/24/57								
APPROVED <i>Lis</i>		5/24/57								
APPROVED <i>Lis</i>		5/24/57								
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P

ADD HOLE LOCATION NOTE AND REFERENCE DIMENSIONS AS SHOWN.



*ADCN REF

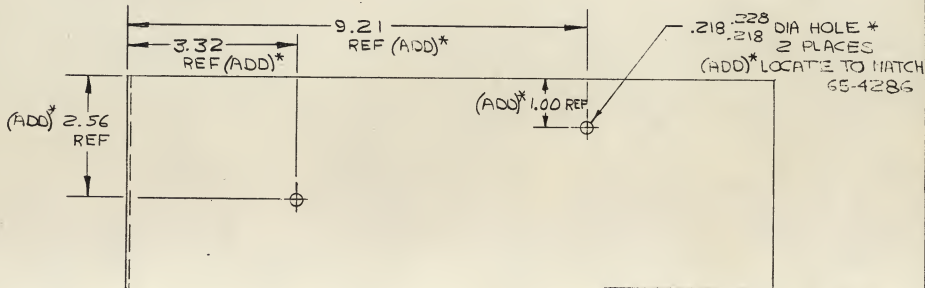
NONE. NO PROD. PARTS MADE.

<input checked="" type="checkbox"/> RELEASED <input type="checkbox"/> CANCELED BY 510-407	
CHECKED	<i>Blakely</i> 4/4/57
CHECKED	<i>Johnson</i> 4/7/57

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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MODEL 707-120	26-20-57 DWG. REC. CLK. R76-20-57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ADDN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION		ISSUE NO. ITEM 7811 CHG. NO.	DWG. TITLE STRUT FAIRING CTR EXHAUST PLUG ASSY OF
DRAFTED E. WHITE	5/23/57	RELEASE 6-20-57 E.S.		ADCN	DRAWING NO. R-1 69-3543
CHECKED EIS	3/1/57	S/P GROUP		SEC. NO. 78	
STRESS <i>Bellevue</i>	5/1/57	LOFT REQUESTED	REASON: HOLE PATTERN DOES NOT COINCIDE WITH ASSY DWG. (ENGRG ERROR)	1-199 &	
APPROVED <i>G.</i>	5/3/57	PROD. INFO.		301-1999 CHG. EFF.	
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE
				STOCK SIZE (APPROX. NET)	MATERIAL
				HEAT TREAT	FINISH
				P	

ADD HOLE LOCATION NOTE AND REFERENCE DIMENSION AS SHOWN.



* ADCN REF.

NONE. NO PROD. PARTS MADE.

<input checked="" type="checkbox"/> BAC RELEASED	<input type="checkbox"/> KC-135
<input type="checkbox"/> CANCELLED BY BAC ADCN	<input checked="" type="checkbox"/> 707
CHECKED <i>Bellevue</i>	4/4/57
CHECKED	
APPROVED <i>W. S. Brown</i>	5/1/57
NUMBER	COLUMN IND
DWG SHEET NO.	

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS
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MODEL	707-120	BT 7-15-57	BOEING AIRPLANE COMPANY SEATTLE 1, WASHINGTON		STRUT EXHAUST PLUG, ASSY OF		
DRAFTED	E. WHITE	4/18/57	ADVANCE DRAWING CHANGE NOTICE		ISSUE NO.	DWG. TITLE	
CHECKED	ES	6/14/57	THE DWG WILL BE CHANGED TO INCLUDE THIS ADCN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION		ITEM 7811	ADCN	
STRESS	—		REASON: TO PROVIDE A STA- TION REFERENCE. (DWG CLARIFICATION)		CHG. NO.	DRAWING NO.	
APPROVED					78	R2 65-4286	
APPROVED	ES	6/14/57			1-199		
PARTS LIST	REPLACES				CHG. EFF.		
ZONE			REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)
							MATERIAL
							HEAT TREAT
							FINISH
							P

CANCELS ADCN R-1

LABEL GRID LINE FOR STATION REFERENCE
AS SHOWN BELOW.

N
STA
220
REF
(ADD)*

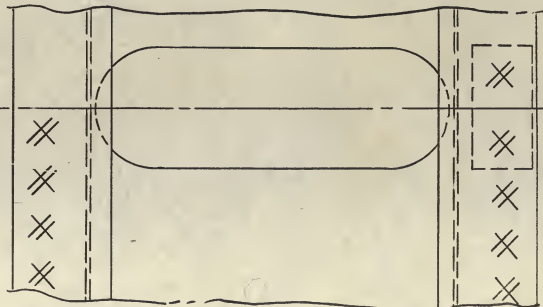
REASON: GRID LINE INCOR-
RECTLY LABELED.

APPROVED	
Chg. <u>ES</u>	Date <u>7-10</u>
Appr d. By <u>W.L.</u>	Date <u>7-11-57</u>
Boeing Airp. Co.-Transport Div.	

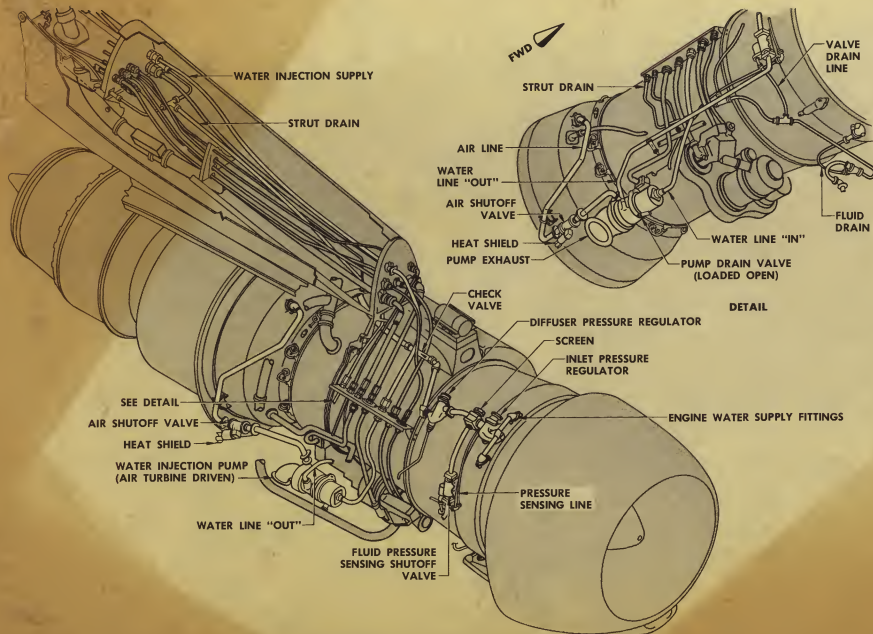
—(SYM*—
(EXCEPT AS NOTED)

* ADCN REF ONLY

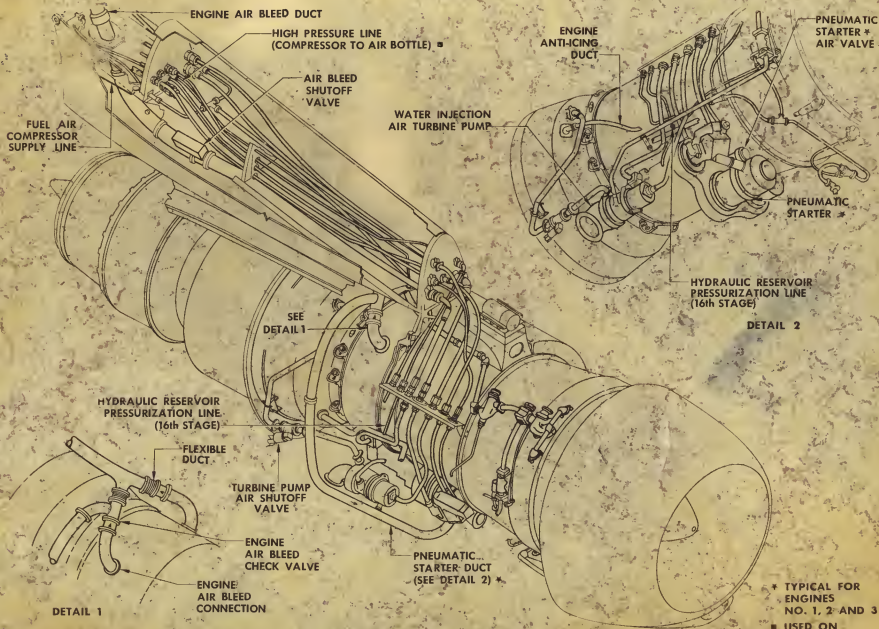
▷ NONE. PARTS
NOT AFFECTED.



(ZN B-4)*



NACELLE WATER INJECTION AND DRAIN INSTALLATION

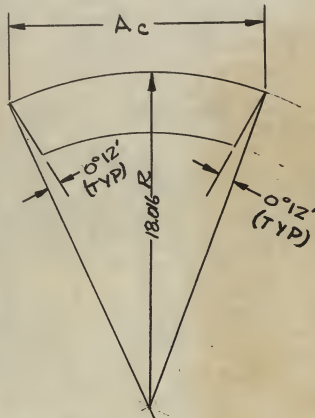


NACELLE PNEUMATIC INSTALLATION

MODEL 707		BOEING AIRPLANE COMPANY		TURNING VANE THRUST REVERSER	
DWG REC CLK 826-18-57		DRAWING DEPARTURE AUTHORIZATION THE DWG WILL NOT BE CHANGED		ISSUE No. 7812	
RAFTED S. WOOD		REASON: TO FACILITATE MFG. OF WELDED ASSY		CHG. No. 1	
CHECKED 4/14/57				SEC. No. 78	
TRES				IPD, ONLY	
PROVED 4/14/57				CHG EFF	
PROVED 4/14/57		B/P GROUP I.R.D PRODUCTION REQUESTED		DDA No. 65-4298	
PROVED 4/14/57		PROD INFO			
PROVED 4/14/57		SHOP INFO			
PROVED 4/14/57		ELR OR DCR			
ARTS LIST ONE		REPLACES		ZONE CODE	
REQD.		PART NUMBER		STOCK SIZE (APPROX. NET)	
NOMENCLATURE		MATERIAL		HEAT TREAT	
FINISH		P			

CHANGE MAIN VIEW TO ADD
DIMENSIONS AS INDICATED

ASSY NO.	Ac
-81	3.075
-83	3.054
-85	2.963
-87	2.961
-89	3.843
-91	4.215



FOR USE ON 65-4291-3 ASSY ONLY

MODEL 707	6-12-71	26-18-57	BOEING AIRPLANE COMPANY SEATTLE 14, WASHINGTON		A		TURNING VANE THRUST REVERSER			
DRAFTED S. WOOD	6-12-71	70675-57	ADVANCE DRAWING CHANGE NOTICE		ISSUE NO. 7812		DWG. TITLE			
CHECKED <i>W. J. J. J.</i>	9/14/71	6-18-57	REASON: TO CORRECT DRAWING ERRORS		CHG. NO. 1		DRAWING NO. 65-4298			
STRESS		R/P GROUP ROHR	REASON: TO CORRECT DRAWING ERRORS		SEC. NO. 78					
STANDARDS		REQUESTED			-1 ASSY ONLY					
APPROVED <i>W. J. J. J.</i>	9/14/71	PROD. INFO.			CHG. EFF.					
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P

CHANGE DIMS. INDICATED BELOW IN ZN A4

ASSY NO	DIM "A" ±.0	DIM "B"	DIM "X"	DIM "Y"
-81	3.070	3.120 3.128	.030	.035
-83	3.050	3.120 3.128	.035	.050
-85	3.000 2.957	3.120 3.128	.025 .050	.1250
-87	2.950	3.120 3.128	.1250	.054
-89	3.820	3.805 3.899	.064	.025
-91	4.150 4.177	4.224 4.231	.054	.000

NO PARTS MADE - PART NUMBERS NOT CHANGED

WORK PRESS. PSI	NUMBER	REQD	NUT	SLEEVE	REQD ZONE SHT	TUBE OD	WALL THICK	MATERIAL	HEAT TREAT	FINISH	TUBING IDENT- IFICATION	TYPE ENDS	MIN STOCK LGTH
	TUBE ASSY		END FITTINGS PER TUBE ASSY		ZONE CODE								

8-68 IT REPRODUCIBLE TO IPD. & ROHR

MODEL 707		DATE 7-15-57 DWG REC CLK		BOEING AIRPLANE COMPANY SEATTLE 14, WASHINGTON		HCR No.		ASSEMBLY			
DRAFTED P. WEED 7/15/57		RELEASE 7-15-57 LB		DRAWING DEPARTMENT AUTHORIZATION		SEC No.		DIRECTIONAL VALVE			
CHECKED P. WEED 7/15/57		P/P UNIT PEARSON R.		THE DWG WILL NOT BE CHANGED		ITEM 7832		DDA NO. 1		DRAWING NO. 69-3507	
STRESS		REQUESTED		REASON: NEW HI-TEMP							
STANDARDS		PROD INFO		BEARING NOT							
APPROVED 7-11		SHOP INFO		AVAILABLE AT THIS TIME.							
APPROVED		DCR No.				CHG EFF					

PARTS LIST ZONE	REPLACES	69-3507	REQD.	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX.)	MATERIAL	HEAT TREAT	FINISH
			✓	1	BEARING BALL (BAG-B10A-680)			MARVIN ROCKWELL CORP		
			✓	1	RA3M5 BEARING BALL			JAMESTOWN N.Y. (GE 5212)		
								FAFNIR BRG. Co.		
								NEW BRITAIN CORP. (GE 5212)		



REMOVE NON-METALLIC SEALS & REPACK WITH SHELL
21176A SILICONE GREASE.
OPTIONAL: REPLACE NON METALLIC SEALS
WITH TEFLON SEALS.



FIRST TWO UNITS MFG'D BY ROHR.



FIRST FOUR UNITS MFG'D BY IPD

21 7-3-57

7-52 17.

MODEL	707	DATE	7-3-57
DRAFTED	E. HELLAND	DWG REC. CLK.	7-3-57
CHECKED		7-3-57	
STRESS		7-3-57	
APPROVED		7-3-57	
APPROVED	E. Helland	7-3-57	

BOEING AIRPLANE COMPANY
FACILITY 11 - WASHINGTON
ADVANCE DRAWING CHANGE NOTICE
ALL DWGS WILL BE CHANGED TO INCLUDE THIS ADON
☐ DEVIATION ☒ VARIATION

REASON:
TO BRING TAB BLOCK
UP TO DATE

SUPPORT BRACKET REVERSE THRUST CONTROL DWG TITLE ASSY. OF			
ISSUE NO	ADCN	DRAWING NO	SHT
FRR 9500	1	69-1581	
CHG NO	3	69-1581	
SEC NO	51		
CHG EFF.	NOTED		

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX NET)	MATERIAL	HEAT TREAT	FINISH	P
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REPLACES ADCN#1
DRAWN: SEYMOUR 7-1-57
REASON: TO BRING TAB
BLOCK UP TO DATE
CHECKED:
APPROVED: *as subdub*
7-2-57

③
↓

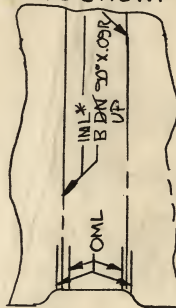
CHANGE TAB BLOCK AS SHOWN:

51		69-1621	707							
51	1	65-1794	707	1-1999			69-1581-2			
51	1	65-1798	707	1-1999			69-1581-2			
AIRP SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS			PART NUMBER	RELEASE COLUMN IND	DWG. SHEET NO.	

THRUST REVERSER

11-50 2T ELR 88727

MODEL 707	62457	7-7-83 DWG REC CLK 9-7-83	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ADN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: FLAT PATTERN DOES NOT AGREE WITH PART SHOWN IN ASSY		STRT-EXHAUST PLUG-ASSY OF DWG. TITLE		ADCN	DRAWING NO	SMT	
DRAFTED RAW A. STEWART	6-27-57	RELEASE 7-8-57			ISSUE NO. 95000		2	65-4286	2	
CHECKED Burke 6-27-57		P. P. GROUP PELICOTT 2-3344 REQUESTED			CHG. NO.					
STRESS					SEC. NO.					
APPROVED					CHG. EFF.					
APPROVED Dactn 6/28/57		PROD. INFO.								
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX NET)	MATERIAL	HEAT TREAT	FINISH	P

IN ZN A2
CHG F/P AS SHOWN


DETAIL PLUG & TOOLS - 4 AFFECTED

*ADCN REF ONLY

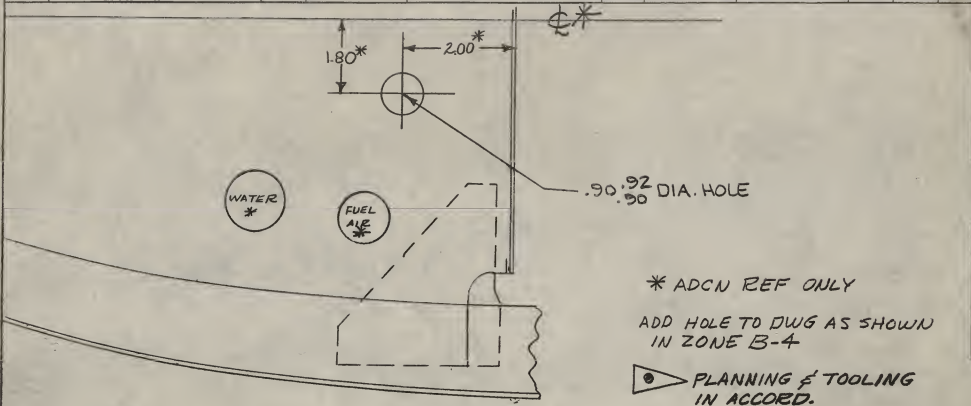
AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS			PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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2.66 17

ADCN

MODEL 707	4/6/57	67 6-21-57 DWG. REC. CLK. 200-71-57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ADCN <input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION REASON: RELOCATION OF CABIN PRESSURE CONTROL SYSTEM PRESSURE SOURCE		A ISSUE NO. PRR 10747 SHE. NO.	CLOSURE RIB INSTL.- INBD DWG. TITLE NACELLE STRUT	
DRAFTED POHLOT	4/6/57	RELEASE 6-21-57			ADDN 7 8-8119	BHT. 2A	
CHECKED HMB		B/P GROUP AIR COND			SEC. NO. 72		
STRESS G. Lauer	4/12/57	REQUESTED			1-198		
APPROVED P. J. Donaldson		 PROD. INFO.			301-1999		
APPROVED					CHG. EFF.		

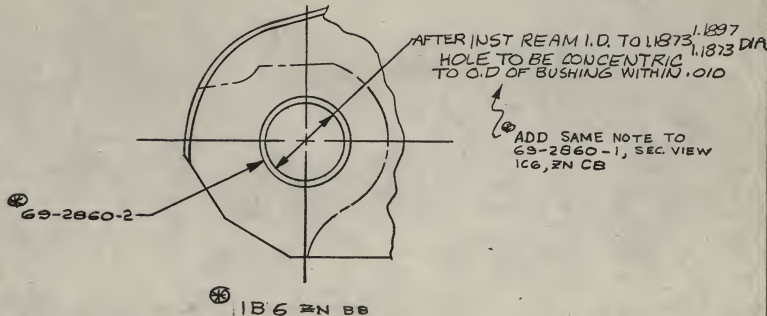
PARTS LIST ZONE	REPLACES	READ	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
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AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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MODEL 707		216-20-57 DWG. REC. CLK. 906-21-57		BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG. WILL BE CHANGED TO INCLUDE THIS ACTION <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: ADD REAMED I.D TO BUSHING		B		SUPPORT INSTALLATION FORWARD DRAG INBD.													
DRAFTED SEEGER I.O.F.		6-3-7				ISSUE NO.		DWG. TITLE NACELLE		BHT.											
CHECKED Schaeffer		6/12/7				PRR CHG. NO. 95000		ADCN 6		DRAWING NO. 50-8727		2									
STRESS		R REQUESTED				SEC. NO. 12															
APPROVED Miller 4/14/7		P		1 THRU 1999																	
APPROVED Bailey 6-15-57		PROD. INFO.		CHG. EFF.																	
PARTS LIST ZONE		REPLACES		RECD		PART NUMBER		NOMENCLATURE		ZONE CODE		STOCK SIZE (APPROX. NET)		MATERIAL		HEAT TREAT		FINISH		P	

ADD CALLOUT TO DWG AS SHOWN BELOW ~



⊗ ADCN REF. ONLY

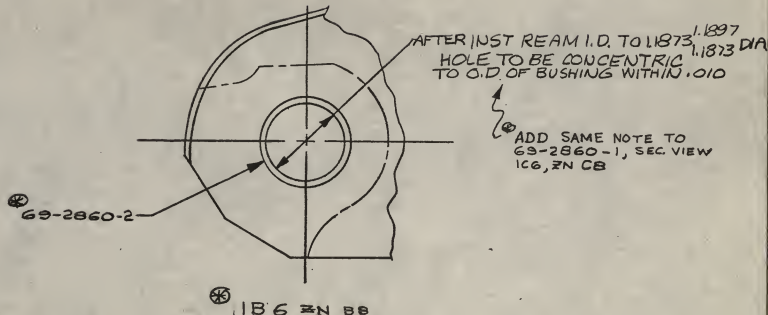
R JENSEN, 6-3320

P ASSY'S COMPLETED MUST AGREE

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS				PART NUMBER	RELEASE COLUMN IND	DWG. SHEET NO.
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MODEL 707		216-20-59 DWG. REC. CLR 426-21-57		BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG. WILL BE CHANGED TO INCLUDE THIS ACTION <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: ADD REAMED I.D. TO BUSHING		B		SUPPORT INSTALLATION FORWARD DRAG INBD.			
DRAFTED SEEGER E OF		6-3-7				ISSUE NO.		DWG. TITLE NACELLE			
CHECKED <i>St. Schaeffer</i>		6/12/67				PRR NO. 95000		ADCN 6		DRAWING NO. 50-8727	
STRESS						SEC. NO. 12					
APPROVED <i>W. Miller</i>		4/14/7		1 THRU 1999							
APPROVED <i>Bailey</i>		6-15-57		CHG. EFF.							
PARTS LIST ZONE		REPLACES		RECD		PART NUMBER		NOMENCLATURE			
								ZONE CODE			
								STOCK SIZE (APPROX. NET)			
								MATERIAL			
								HEAT TREAT			
								FINISH			
								P			

ADD CALLOUT TO DWG AS SHOWN BELOW ~



⊕ ADCN REF. ONLY

⊕ 1B6 2N BB


R JENSEN, 6-3320

P ASSY'S COMPLETED MUST AGREE

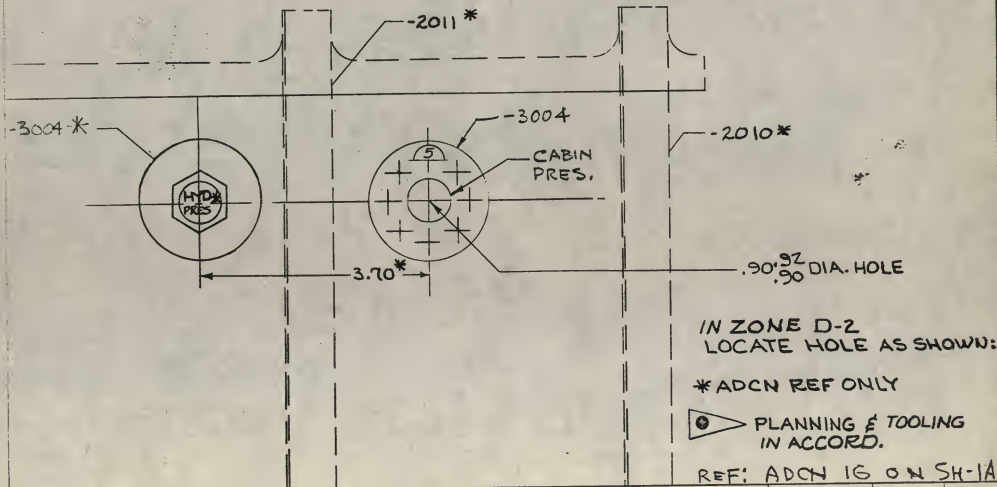
AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS				PART NUMBER	RELEASE COLUMN IND	DWG. SHEET NO.
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1-56 1T

ADCN

MODEL 707		276-21 57 DWG. REC. CLK. 266-21-57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG. WILL BE CHANGED TO INCLUDE THIS ADEN <input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION REASON: RELOCATION OF CABIN PRESSURE CONTROL SYSTEM PRESSURE SOURCE		A ISSUE NO. PER 10747 CHG. NO. SEC. NO. 72 1-155, 301-1233 CHG. EFF.		MID SPAR INSTALLATION-INBD DWG. TITLE <i>NACELLE STREET</i>		
DRAFTED POHLOT	6/6/57	RELEASE 6-22-57 C B					ADCN	DRAWING NO.	SHT.
CHECKED <i>Hx2</i>		S/P GROUP					18	4-5175	3A
STRESS <i>G. Fair</i>	6/2/57	AIR COND REQUESTED							
APPROVED <i>J. P. Donaldson</i> <i>6/12</i>									
APPROVED		PROD. INFO.							

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
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AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS			PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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17

A
D
C
N

CHANGE P/L AS SHOWN ABOVE

ADCN 5 REPLACES ADCN 2
CANCELS ADCN 4

EEW 11/9/56

MODEL 707	217-18-57 DWG. REC. CLK	BOEING AIRPLANE COMPANY		STIFFENER R.H. SIDE INBD NAC STRUT DWG. TITLE	
GLENN R. DOWNING DRAFTED	612-57 4/27-12-57	ADVANCE DRAWING CHANGE NOTICE		ISSUE NO.	
CHECKED <i>R. Rothenbuhler</i>	RELEASE 7-15-57 H.B.	THE DWG. WILL BE CHANGED TO INCLUDE THIS DESIGN		ITEM 95000	
STRESS	S.P. GROUP	<input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION		CHG. NO.	
APPROVED	SAFFELL 6-3060	REASON: ADDITION OF ELECTRICAL GROUNDING PROVISIONS		SEC. NO. 72	
APPROVED	REQUIRED			H199 & 301-1999	
	0.3.A			CHG. EFF.	
	PROD. INFO.				

PARTS LIST ZONE	REPLACES		RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
1		✓	1	5-88447-2000	STIFFENER	C52A	BAC1517-497 X 81.70 LG	1	T6	SRE 2.115	RF
	NEW	—	—	5-88447-3006	STIFFENER, ASSY OF	C52A					RF
	NEW	✓	2	69-5363	BRACKET, ASSY OF	C42A					
	NEW	✓	2	69-5363-1	BRACKET, ASSY OF	C52A					
	NEW ③ →	✓	2	69-5363-2	BRACKET, ASSY OF	C82A					
	NEW	✓	1	12LHAI-02	NUT, PLATE (NUT PLATE 12LHAI-02)	C22A					

CHANGE PARTS LIST AS SHOWN ABOVE ADD -3006 REL. COLUMN

CHANGE DWG TITLE TO READ AS FOLLOWS: "STIFFENER, R.H. SIDE"
INBD NAC STRUT,
ASSY OF

ADCN NOTE: SEE DCN B ON 5-88447 SHT 2A, ADCN 2
ON 5-88447 SHT 1A; 69-5363 (NEW DWG),
ADCN 8 ON 5-85617 SHT 1A, & ADCN 9
ON 5-85617 SHT 2A FOR COMPLETE
CHANGE. ③ → ALSO SEE ADCN 3 ON 5-88447 SHT 2A

REPLACES ADCN 2
ADVANCE COPIES ONLY RELEASED
REASON: TO ADD (1) 69-5363-2
BRACKET ASSY TO DWG PER
ELR 2323, (CX 10-136) 7-2-7
DRAFTED: GLENN R. DOWNING
CHECKED: R. Rothenbuhler 7/2/57
APPROVED: *R. Rothenbuhler* 7-2-7

REWORK EXISTING PARTS INSTL
& ASSY

CHANGE TAB BLOCK AS SHOWN BELOW


72	2	5-85617	707	301 THRU 1999	5-88447-3006	1A & 2A	
72	2	5-85617	707	301 THRU 1999	5-88447-2000	1A & 2A	
72	2	5-85617	707	1 THRU 199	5-83447-3006	1A & 2A	
72	2	5-85617	707	1 THRU 199	5-88447-2000	1A & 2A	
AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.

MODEL 707		DWG. REC. CLK 5/17/57		BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG. WILL BE CHANGED TO INCLUDE THIS ACTION <input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION		ISSUE NO. PRR 95000 CHG. NO.		ENGINE MOUNT INSTALLATION DWG. TITLE				ADCN		DRAWING NO.		SHT.					
DRAFTED P.H. CORSER		7-9-57		RELEASE 4-18-57		SEC. NO. 76		3		50-10650		1A									
CHECKED H. H. H. H. H.		7/1/57		B/P GROUP 6-7000		1-199															
STRESS				REQUESTED		301-1999															
APPROVED M. Donaldson		7/10/57		PROD. INFO.		CHG. EFF.															
PARTS LIST ZONE		REPLACES		REQD		PART NUMBER		NOMENCLATURE		ZONE CODE		STOCK SIZE (APPROX. NET)		MATERIAL		HEAT TREAT		FINISH		P	
		✓		2		6-83855		BOLT-SUPT LINK		C7											
6-83855		✓		2		6-83855-1		BOLT-SUPT LINK		C7											
<p>CHANGE AL AS SHOWN ABOVE</p> <p>CHANGE CALLOUT IN REAR VIEW FROM 6-83855 TO 6-83855-1</p>																					
AIRP. SEC. NO.		QTY. PER AIRP.		USED ON DWG. NO.		MODEL		AIRPLANE SERIAL NUMBERS		PART NUMBER		RELEASE COLUMN IND		DWG SHEET NO.							

3-75-2T

MODEL	707	RR 7/17/57	BOEING AIRPLANE COMPANY		A	LOWER SPAR INSTL. INBD NAC STRUT					
DRAFTED	WILLARD DALE	7-2-57	ADVANCE DRAWING CHANGE NOTICE		ISSUE NO.	ADCN	DRAWING NO.				
CHECKED	<i>Paul Galt</i>	7/9	THE DWG WILL BE CHANGED TO INCLUDE THIS ADN		PRR-10826	12	3-8100				
STRESS	<i>E. J. Kiefer</i>	7-9-7	<input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION		CHG. NO.						
APPROVED	<i>P. Donaldson</i>	7/1/57	REASON: TO PROVIDE SUPPORT FOR THRUST- REVERSER CONTROL BRACKET		SEC. NO.						
APPROVED	<i>APR 210</i>		PROD. INFO.		1-199						
PARTS LIST ZONE		REPLACES	REGD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
(R) 69-4279-1		✓ ✓	1	69-4279-3	FAIRING SUPPORT LOWER SPAR	A8					
NEW		✓ ✓	1	69-5434	STIFFENER	A8					
NEW		✓ ✓	1	69-5434-1	STIFFENER	A8					
(REF) 66-4522		✓ ✓	1	66-5025-1	STIFFENER ANGLE	A3					
NEW		✓ ✓	1	-3025	DOUBLER	A8	.040 x .85 x 4.50	3	-	F-3.05	P

CHANGE P/L AS SHOWN ABOVE:

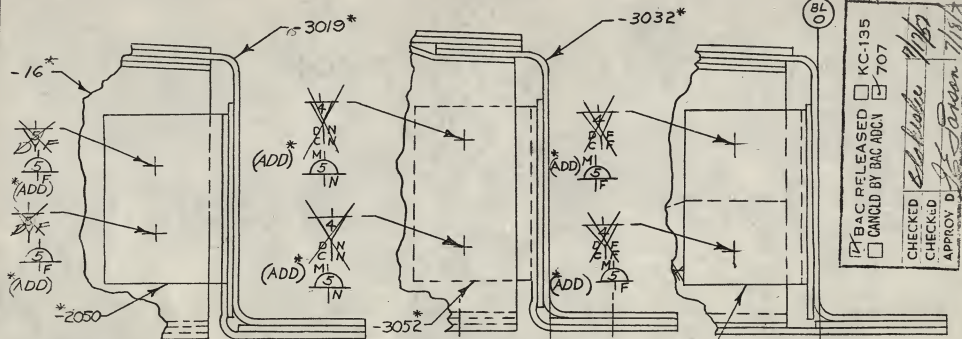
 REWORK EXISTING PARTS
 SCRAP 66-4522 & 69-4279-1

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS				PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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3-76 IT NOT PROCESSED.

MODEL	707	517-22-53 DWG. REC. 21	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG. WILL BE CHANGED TO INCLUDE THIS ADCH <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION TO ELIMINATE HAVING TO DISASSEMBLE & REMOVE THE FRAME & CLIP FROM. ASSEMBLY JIG FOR DIMPLE & CSK. OPERATION. (MFG FACILITY)			COWL PANEL ASSY LEFT HAND SIDE ENG. DWG. TITLE NACELLE.				
DRAFTED	CWHULL	6/5/57	ISSUE NO.	ADCN	DRAWING NO.	SHT.				
CHECKED	<i>[Signature]</i>	6/5/57	PRR 95000	R-5	5-85637	4A				
STRESS	<i>[Signature]</i>	6/5/57	CHG. NO.							
APPROVED	<i>[Signature]</i>	6/5/57	SEC. NO.	71						
APPROVED			1 THRU 199							
			301 THRU 1993							
			CHG. EFF.							
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P

REVISE FACE OF DWG AS SHOWN BELOW.



*ADCN REF

*ZONE A9 *2A8-2A

*ZONE B2 *2D2 -3051 *ZONE A1 & B1 *3D2

NO REWORK WILL BE REQ'D ON DETAILS WHICH HAVE BEEN ASSEMBLED OR INSTALLED. KC135 NOT AFFECTED.

<input checked="" type="checkbox"/> BAC RELEASED	<input type="checkbox"/> KC-135
<input type="checkbox"/> CANCELLED BY DAC ADCN	<input type="checkbox"/> 707
CHECKED	<i>[Signature]</i>
CHECKED	<i>[Signature]</i>
APPROV D	<i>[Signature]</i>

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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591-567

49 7197

3-62 IT NOT PROCESS

A
D
C
N

MODEL 707	577-22-57 DWG. REC. CLK
MR. MATTESON DRAFTED	147-22-57 RELEASE
CHECKED <i>DARTON</i>	7-5-57 B/P UNIT
STRESS <i>E. B.</i>	6/14/57 ROHR 4-1390 REQUESTED
APPROVED <i>E. B.</i>	P PROD. INFO.

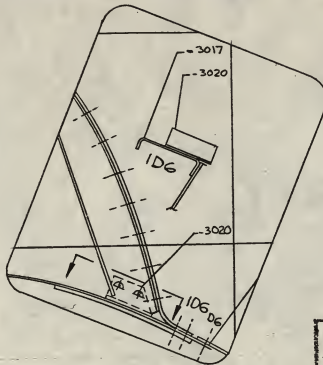
BOEING AIRPLANE COMPANY
SEATTLE 14, WASHINGTON
ADVANCE DRAWING CHANGE NOTICE
THE DWG. WILL BE CHANGED TO INCLUDE THIS ACTION
☐ DEVIATION ☒ VARIATION

REASON: -3019, -3020 OPP CLIP
NOT CLEARLY DEFINED.
(ENGRG. ERROR)

ISSUE NO.	NOSE COWL ENGINE NACELLE ASSY OF		
ITEM 7130	ADCN	DRAWING NO.	SHT.
CHG. NO.	R-7	5-85655	44
SEC. NO.	71		
1 THRU 139 301 THRU 1999 CHG. EFF.			

PARTS LIST ZONE	REPLACES	READ	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
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ADD VIEW & SECTION CUT TO FACE OF DWG. PER STICKER VIEW R-1:



* STICKER VIEW R-1
* ZONE D6

* ADCN REF.

P REWORK EXISTING PARTS & ASSY'S INSTALLED.

KC-135 NOT AFFECTED.

<input checked="" type="checkbox"/> BAC RELEASED	<input type="checkbox"/> KC-135
<input type="checkbox"/> CANCELLED BY BAC	<input checked="" type="checkbox"/> 707
CHECKED	<i>E. B.</i> 7/15/57
CHECKED	<i>E. B.</i> 7/18/57
APPROVED	<i>E. B.</i> 7/18/57

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG. SHEET NO.
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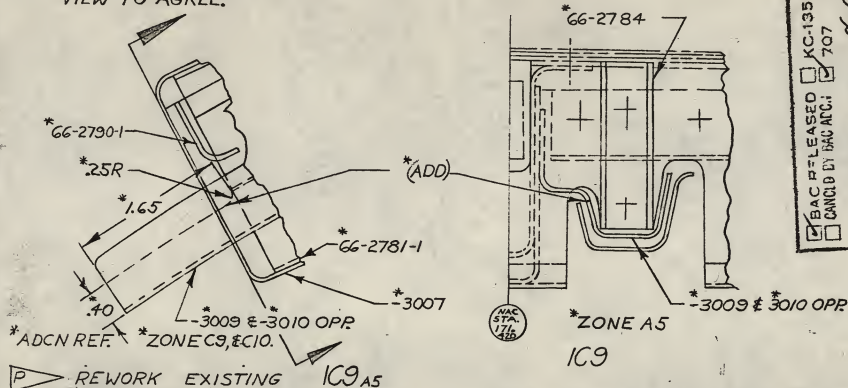
581-566

3-12 11 NOT PROCESS

MODEL 707	57 7-22-57 DWG. REC. CLK.	BOEING AIRPLANE COMPANY		A		MID FAIRING INSTALLATION ENGINE.	
DRAFTED CW.HULL-X 6/1/57	967-22-57 RELEASE	ADVANCE DRAWING CHANGE NOTICE		ISSUE NO.		DWG. TITLE NAC. STRUT.	
CHECKED DARTON 6/1/57	7-22-57	THE DWG WILL BE CHANGED TO INCLUDE THIS ACTION		PRR 10087		ADCN	
STRESS HECHT 6/11/57	ROHR 40-1458 REQUESTED	<input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION		CHG. NO.		DRAWING NO.	
APPROVED	P	REASON: TRIM ON OUTBD END OF -3009, -3010 OPP CHANNEL REQ'D TO FIT ADJACENT PANEL.		SEC. NO. 71		SHT.	
APPROVED	PROD. INFO.			1 THRU 199 301 THRU 1999 CHG. EFF.			
PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL
							HEAT TREAT
							FINISH
							P

REVISE FACE OF DWG AS SHOWN BELOW.

NOTE: CHANGE -3010 AT RIGHT HAND VIEW TO AGREE.



<input checked="" type="checkbox"/> BAC RELEASED	<input type="checkbox"/> KC-135
<input type="checkbox"/> CANCELLED BY DWG ATC.	<input checked="" type="checkbox"/> 707
CHECKED	Blakely 11/67
CHECKED	11/67
APPROV.-D	11/67

P REWORK EXISTING
PARTS & ASSY'S NOT
INSTALLED.

IC9 A5

KC 135 NOT AFFECTED

AP 7/19/7

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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3-62 IT NOT PROCESS

MODEL 707	147-22-57	BOEING AIRPLANE COMPANY	TRAILING EDGE FAIRING OUTS.D. NAC.	
MATTESON	DWG. REC. CLK	ADVANCE DRAWING CHANGE NOTICE THE DWG. WILL BE CHANGED TO INCLUDE AN ADCN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: PART CALLOUT CHG ON PARTS LIST BUT NOT ON FACE OF DWG. (ENGRG ERROR)	DWG. TITLE	
DRAFTED	RELEASE		STRUT ASSY OF	
CHECKED	7-22-57		ADCN	DRAWING NO.
STRES.	4/10/57		ITEM 7455	SHT.
APPROVED	ROHR	CHG. NO.	R-4	5-85636
APPROVED	4-11-52	SEC. NO.	74	
	REQUESTED	1 THRU 199		
	PROD. INFO.	301 THRU 1999		
		CHG. EFF.		

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
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REVISE CALLOUT IN ZONE C8 AS SHOWN:

* THIS CHG. INCOMPLETE WITHOUT ADCN RI-6, SHT 1A ON 5-85636.

.06 TYP. CLEARANCE

~~74~~ 4-47 (R.H.)
 -112

* ZONE C8

<input checked="" type="checkbox"/> BAC RELEASE	<input type="checkbox"/> KC 135
<input type="checkbox"/> CANCEL BY BAC	707
CHECKED	<i>Blatnick</i>
CHECKED	<i>Blatnick</i>
APPROVED	<i>Blatnick</i>

* ADCN REF.

▷ REWORK EXISTING PARTS NOT ASSEMBLED.

KC-135 NOT AFFECTED.

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS			PART NUMBER	RELEASE COLUMN IND.	DWG. SHEET NO.
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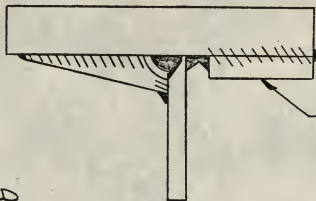
A
D
C
N1R
15

2-67 IF (NOT PROCESS)

MODEL 707	277-17-57	BOEING AIRPLANE COMPANY	BRACKET-MAG CONT.	
DRAFTED C. ROSS	6/4/57	ADVANCE DRAWING CHANGE NOTICE	UPPER HALF WELD	
CHECKED DIXON	6/6/57	THE DWG WILL BE CHANGED TO INCLUDE THIS ACTION	DWG. TITLE ASSY OF	
STRESS HECHT	6/6/57	<input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION	ISSUE NO.	ADCN
APPROVED		REASON: PADS ARE OF DIFFERENT CONFIGURATION (ENGRG ERROR)	PRR 10275	DRAWING NO.
APPROVED			CHG. NO.	SHT.
			77E 79	
			SEC. NO.	
			1 THRU 4	
			CHG. EFF.	

PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
1-10		✓	-9	PAD	B3	25X1.0X1.0	1			R
NBW		✓	-3800	PAD	C3	25X1.0X1.0	1			R

CHG P/L AS SHOWN ABOVE & VIEWS AS SHOWN BELOW



1C4 TYP
 (ADD) BOTH ENDS
 EXCEPT AS NOTED

* ADCN REF

▷ RWK EXISTING PARTS & ASSYS

* (ADD) 1C5, TYP } 2 PLACES
 EXCEPT AS NOTED

KC-135 NOT AFFECTED

BAC RELEASED	<input checked="" type="checkbox"/> KC-135
CHG BY DAC ADGN	<input checked="" type="checkbox"/> 707
CHECKED	Blaker Lu 7/1/57
CHECKED	7/1/57
APPROVED	581-392

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.

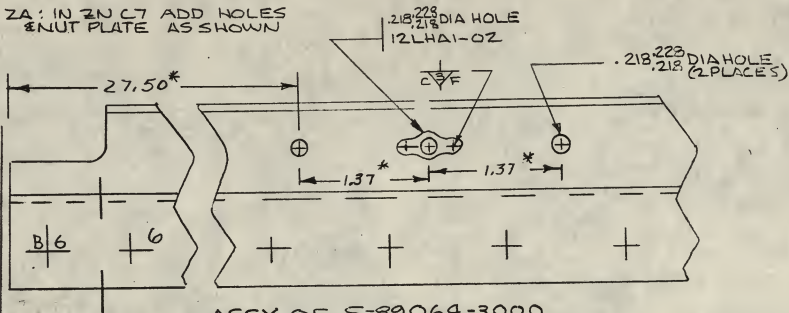
POWER PLANT

2T 3-20

CX10-137

ELR NO. 2324	MODEL NO. 707	517-19-57 DWG. REC. CLK. 707-19-57 RELEASE 7-19-57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWS WILL BE CHANGED TO INCLUDE THIS AS A VARIATION REASON: GROUND LOCATIONS NEEDED		ISSUE NO. ITEM 95000 CHG. NO. SEC. NO. 74	STIFFENER ASSY R.H. SIDE DWG. TITLE OUTBOARD NAC STRUT			
GLENN R. DOWNING 7-12-57	7-12-57	7-19-57				ADCN	DRAWING NO.	BHT.	
DRAFTED						1	5-89064	1A	58
CHECKED <i>R. Smith</i>	7-12-57	B/P GROUP NO CHANGE SEE BELOW				1	5-89064	2A	58
STRESS									
APPROVED <i>W. J. Smith</i>	7-12-57				CHG. EFF.				
ORIGINATOR	PHONE				PLANNING	PHONE			
REQ. R. SMITH 7-1-57	2889		ENGINEERING LIAISON REQUEST			INS CH Morin			
APP. <i>H. Watson</i>	3710		ELR						
DEPT. 6-3060 MU	BOX NO. 81-15				BOX NO.				
PARTS LIST	REPLACES	REQD.	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH P
①		-3000	810	12LHA1-02					
				NUT PLATE BAC-NIOLA-A35					

SHT 1A: CHANGE PARTS LIST AS SHOWN ABOVE

SHT 2A: IN 2N C7 ADD HOLES
& NUT PLATE AS SHOWN

*ADCU REF ONLY

PROD. INFO REWORK EXISTING PARTS INSTALLED

STATUS OF TOOLS
S/O R PLANNINGSTATUS OF COMPLETED
AIRP. & OR PARTS7-1-57
64510

7-1-57

6

3-76 17

ADCN

MODEL	707	7-19-57 DWG. REC. CLK 927-1437
DRAFTED	WILLARD DALE	7-10-7
CHECKED	<i>W. J. Lee</i>	7/15
STRESS	<i>A. P. Jones</i>	7/15/57
APPROVED	<i>R. Donaldson</i>	7/15/57
APPROVED		

BOEING AIRPLANE COMPANY

ADVANCE DRAWING CHANGE NOTICE

THE DWG WILL BE CHANGED TO INCLUDE THE FOLLOWING

☐ DEVIATION ☐ VARIATION

REASON: TO PROVIDE CLEAR-
ANCE FOR CABIN AIR
CONDITIONING DUCT

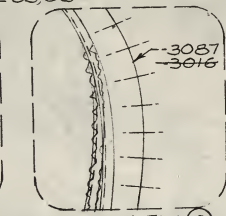
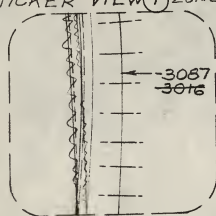
ISSUE NO.	ADCN	DRAWING NO.	SHT.
PRR 10749	1	5-85638	4A
CHG. NO.			
SEC. NO.	71		
1 THRU 199			
301 THRU			
CHG. EFF. 1999			

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
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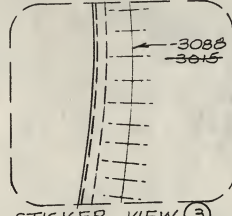
CHANGE INSIDE CONTOURS OF -3016 ON FRAME STA 142.80 PER STICKER VIEW ① ②

CHANGE CALLOUT OF -3007 TO -3091 & -3027 TO -3094 AND -3015 ON FRAME STA 134.40 PER STICKER VIEW ③ ④

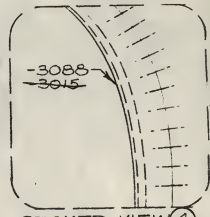
STICKER VIEW ① ZONE C3, D3



STICKER VIEW ② ZONE D3, E3



STICKER VIEW ③ ZONE D1, E1



STICKER VIEW ④ ZONE C1, D1

CHANGE ALL CALLOUTS OF -3015 TO -3088 AND -3016 TO -3087

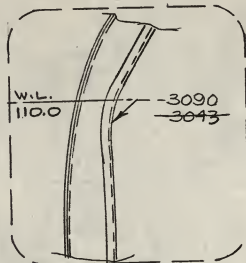
SEE ADCN #6 ON SHT 1A FOR P/L #71117

REWORK EXISTING PARTS SCRAP -3015 AND -3016

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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MODEL 707		57 7-19-57 DWG. REC. CLK	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ADDN <input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION REASON: TO PROVIDE CLEAR- ANCE FOR THE THRUST REVERSER UPPER ACTUATOR CYLINDERS,		COWL PANEL ASSY L.H. SIDE. ENG NAC		3-70 77	
WILLARD DALE		7-12-77			ISSUE NO. PRR 10749	ADCN 3	DRAWING NO. 5-85637	SHT. 100
DRAFTED		RELEASE 7-19-57	CHG. NO. 71					
CHECKED <i>R. Donaldson</i>		7/12	SEC. NO. 1 THRU 199					
STRESS <i>A. Fair</i>		7/15/57	301 THRU CHG. EFF. 1989					
APPROVED <i>R. Donaldson</i>		7/12/57						
APPROVED		PROD. INFO.						

CHANGED INSIDE CONTOURS OF ~~-3043~~ -3090 ON FRAME STA 197.50 PER
 CHANGE ALL CALLOUTS OF ~~-3043~~ TO -3090
 STICKER VIEW (4)



STICKER VIEW (4) ZONE D6, E6



REWORK EXISTING PARTS

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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MODEL	707	BT-17-57
DRAFTED	M. Donsoug 7/10/57	DWG. REC. CLK 8-2411/10/57
CHECKED	7/10/57	RELEASE 9-19-57/28
STRESS	Donaldson 7/10	B/P GROUP DONALDSON
APPROVED	7/11	REQUESTED
APPROVED		PROD INFO
APPROVED		SHOP INFO
APPROVED		ELR OR DCR

BOEING AIRPLANE COMPANY

DRAWING DEPARTURE AUTHORIZATION
THE DWG WILL NOT BE CHANGED
REASON:
TO PROVIDE NECESSARY
BRACKETS AT BACo
ON PROTOTYPE ENGINES

POWER PACK ASSY.

DWG TITLE

DDA No.

DRAWING No.

ISSUE No.

PRR 10881
CHG. No.

4

50-6806

SEC. No. 76

AIRPS 1
2, 3 & 101
CHG EFF

PARTS LIST ZONE	REPLACES	8	6	5	A	3	2	-1	REQD.	PART NUMBER	NOMENCLATURE
NEW									1	65-6353	KIT INSTL-BRKTS
NEW	V	V							1	65-6353	KIT INST-BRKTS
NEW	V								2	65-6353	KIT INST-BRKTS

ZONE
CODE

STOCK SIZE
(APPROX. NET)

MATERIAL

HEAT
TREAT

FINISH

P

ADD TO P/L AS SHOWN ABOVE



AIRPS 1, 2, 3



AIRPL 101

FOR INST. ON THE PROTOTYPE ENGINES.

USE FOR FLIGHT & CERTIFICATION TESTS ONLY

#P 7/11/57

MODEL 707		B77-17-57 DWG REC CLK		BOEING AIRPLANE COMPANY				POWER PACK ASSY.									
DRAFTED M. DONOVAN 7/10/77		RELEASE 7-19-57/EC		DRAWING DEPARTURE AUTHORIZATION THE DWG WILL NOT BE CHANGED				DWG TITLE									
CHECKED E. P. 7/10/77		B/P GROUP DONALDSON REQUESTED		REASON: TO PROVIDE NECESSARY BRACKETS AT BACO ON PROTOTYPE ENGINES				DDA No. DRAWING No.									
STRESS								ISSUE No. PRR 10881									
APPROVED Donaldson 7/10		PROD INFO						CHG. No. 4 50-6806									
APPROVED 7/11		SHOP INFO						SEC. No. 76									
APPROVED		ELR OR DCR						AIRPS 1 2, 3 & 101									
APPROVED								CHG EFF									
PARTS LIST ZONE	REPLACES	Q	Q	S	A	3	2	-1	REQD.	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
NEW					✓	✓	✓	✓	1 ▷	65-6353	KIT INSTL-BRKTS						
NEW	✓	✓							1 ▷	65-6353	KIT INST- BRKTS						
NEW	✓								2 ▷	65-6353	KIT INST- BRKTS						

ADD TO P/L AS SHOWN ABOVE

▷ AIRPS 1, 2, 3
FOR INST. ON THE PROTOTYPE ENGINES.
USE FOR FLIGHT & CERTIFICATION TESTS ONLY

▷ AIRPL 101

#P 7/10/77

TOWER PLANT

8-20-77

SHT 1: CHANGE P/L AS SHOWN ABOVE

MODEL	707	7-10-57 DWG. REC. CLK.
DRAFTED	J.P. THOMPSON	6-21-57 7-15-57 LB
CHECKED	J. RASNAK	6-27-57 B/P GROUP
STRESS	<i>W. J. RASNAK</i>	WATANABE 6-30-60 REQUESTED
APPROVED	<i>W. J. RASNAK</i>	<i>P</i> PROD. INFO.

BOEING AIRPLANE COMPANY
ADVANCE DRAWING CHANGE NOTICE
 THE DWG WILL BE CHANGED TO INCLUDE THE ADN
☐ DEVIATION ☐ VARIATION
 REASON: COMPLETION OF BASIC
 DESIGN; REVERSE THRUST CONTROL
 INSTL INTERFERENCE
 (REF COORD SHT CX 10-125)

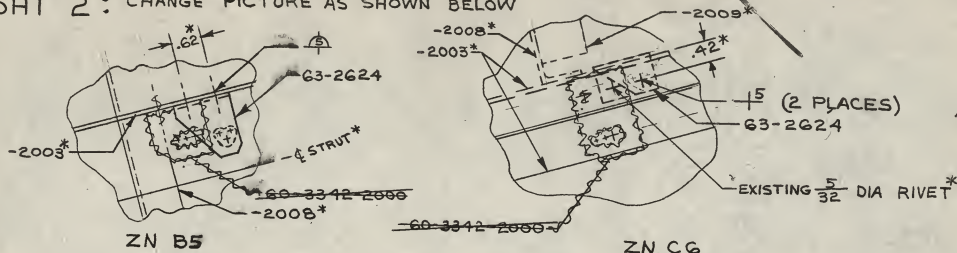
FRONT SPAR INSTL- INBD NACELLE STRUT		
DWG. TITLE		
ADCN	DRAWING NO.	SHT.
	7	8-8120
	5	8-8120

ISSUE NO.	95000
CHG. NO.	
SEC. NO.	72
	1-199
	301-1999
CHG. EFF.	

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
		✓	# 3	60-3342-2000						
	(1) 60-3342-2000	✓	1	63-2624	CLIP	85				

SHT 1: CHANGE P/L AS SHOWN ABOVE

SHT 2: CHANGE PICTURE AS SHOWN BELOW



PLUG EXISTING HOLES WITH 2017-T3 RIVETS
 REWORK EXISTING ASSEMBLIES INSTALLED

* ADCN REF ONLY

WORK PRESS. FBI	NUMBER	REQD	NUT	SLEEVE	REQD	ZONE	SHT	TUBE OD	WALL THICK	MATERIAL	HEAT TREAT	FINISH	TUBING IDENTIFICATION	TYPE ENDS	MIN STOCK LGTH
	TUBE ASSY		END FITTINGS PER TUBE ASSY			ZONE CODE									

MODEL	707	BOEING AIRPLANE COMPANY		BULKHEAD INSTL-FWD ENGINE MOUNT CUTOUT	
DRAFTED	G.R. DOWNING 1-4-57	ADVANCE DRAWING CHANGE NOTICE		ISSUE NO.	ADCN
CHECKED	N. DICKASON 1-15-57	REASON: INTERFERENCE BETWEEN INTERPHONE RECEPTACLE & 65-2318 (REF). ALSO TO RELOCATE 208101		ITEM 95000	DRAWING NO.
STRESS	<i>J. B. [Signature]</i> 1-16-57	REASON: INTERFERENCE BETWEEN INTERPHONE RECEPTACLE & 65-2318 (REF). ALSO TO RELOCATE 208101		SEC. NO. 74	6 4-5181
APPROVED	<i>[Signature]</i> 1-16-57	RELOCATE 208101		6 4-5181	1A 32
APPROVED		H99 & 301-1999		6 4-5181	2A 38

PARTS LIST	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
NEW	✓	1	208101	CONNECTOR PLATE C2						

SHT 1A CHANGE PARTS LIST AS SHOWN
 REPLACES ADCN 5 SHT 2A
 REASON: TO ELIMINATE INTERFERENCE BETWEEN NUT PLATE & -2001 RIB (ENGRG. ERROR)

CANCELS ADCN 5 SHT 1A
 CANCELS ADCN 4 SHT 2A
 REASON: TO MAKE OUTBD DISCONNECTS SIMILAR TO INBOARD

SHT 2A ZN C2 ADD 208101
 AS SHOWN

ADCN 6 REPLACES
 ADCN R-2 SHT 2A

REASON: TO FACILITATE INSTL. & SERVICE.

DRAFTED: G. OSTERLOH

REVIEWED: T. BURD 7/5/57

APPROVED: [Signature] 7/5/57

RELOCATE IN ZN 2B AS SHOWN

*5.75

6-73108

4-5181-3006

4-5181-3007

CUT OUT OVER EACH 2010-33

WALTER KIDDE & CO., INC.

675 MAIN ST.

BELLE VILLE, 9 NEW JERSEY

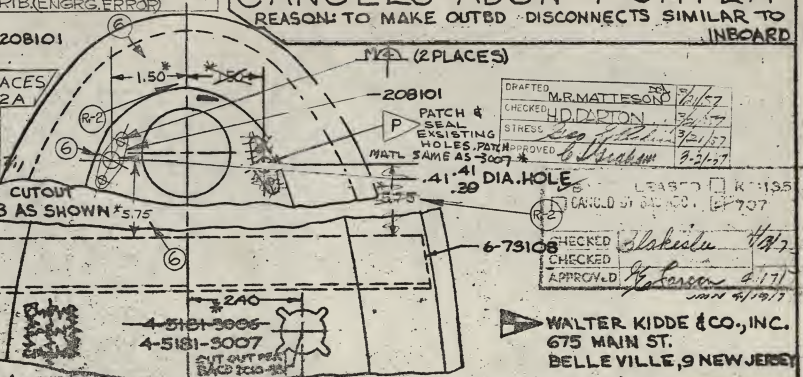
REWORK-3006 BY ADDING 120x120 PATCH OVER EACH 2010-33 CUTOUT. PATCH MATL. SAME AS -3007. INSTALL ON AFT SIDE WITH AN 515-4-B SCREW (NO. 442) (RAT-HOBY-50) NUT (4 PLACES)

208101

208101

208101

208101



DRAFTED	M.R. MATESON	7/5/57
CHECKED	H. DARTON	7/5/57
STRESS	<i>J. B. [Signature]</i>	7/5/57
APPROVED	<i>[Signature]</i>	7/5/57

LEAST 707

707

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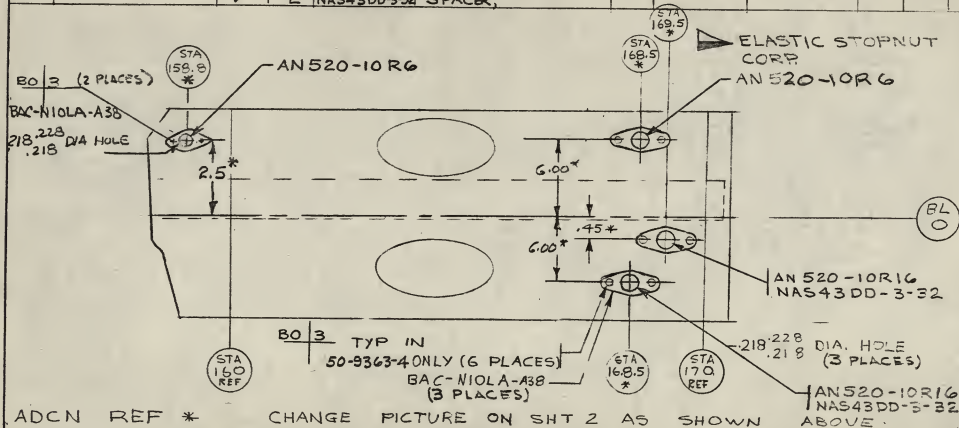
707

707

707

MODEL 707	7-5-57	57-7-16-57 DWG REC CLK	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE NO SPEC WILL BE CHANGED TO INCLUDE THIS AD CN <input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION REASON: ADD NUT PLATES FOR FIRE DETECTOR		ISSUE NO. PRR 10453 CHG. NO. 72, 74 SEC. NO. 1-199- 301-1999 CHG. EFF.	DOOR-NACELLE LOWER SPAR DWG. TITLE ASSEMBLY OF	ADCN 2	DRAWING NO. 50-9363	SHT 2
DRAFTED G. OSTERLOH	7-5-57	RELEASE 7-17-57							
CHECKED T. BURDO	7/8/57	S/P GROUP DONALDSON 6-7000 REQUESTED							
STRESS APPROVED <i>[Signature]</i>									
APPROVED <i>[Signature]</i>									
APPROVED <i>[Signature]</i>		PROD. INFO.							

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
	✓	4	BAC-NIOLA-A38	NUT-PLATE 70LHA1-02						
	✓	2	AN520-10R16	SCREW MACH						
	✓	2	AN520-10R6	SCREW MACH						
	✓	2	NAS43DD-332	SPACER,						



AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.

1-20 4T

MODEL 707-120		57620-57 DWG. REC. CLK.	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THE ADON <input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION REASON: PART NUMBERS INCORRECT ON DRAWING * (DRAFTING ERROR)		GUSSET-MID FAIRING ENGINE NAC STRUT				
DRAFTED WILLARD DALE 8-12-7		8271 6-20-57 RELEASE			DWG. TITLE				
CHECKED <i>Thylen</i> 8-12-7		6-20-5710 B/P GROUP			ADCN DRAWING NO. SHT.				
STRESS		P. DONALDSON P.P. 6-7000 REQUESTED			CHG. NO. 35000				
APPROVED <i>Donaldson</i> 6/13/57		PROD. INFO.	SEC. NO. 71		3 5-88795 2A				
APPROVED			1 THRU 199		3 5-88795 1A				
PARTS LIST ZONE		REPLACES	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P	
63-1791		-3000 -3002 -3001	REQD +1	PART NUMBER 63-1791-1	GUSSET				

CHANGE CALLOUTS AS FOLLOWS ON SHT 2A
 IN ZONE A5 EDGE OF 66-2766 & 66-2790 "CHANGED TO" EDGE OF 63-1791-1 & 66-2790"
 IN ZONE A5 "66-2766" CHANGED TO "63-1791-1"
 IN ZONE A6 "EDGE OF 66-2766 & 66-2781-3" CHANGED TO "EDGE OF 63-1791-1 & 66-2781-3"
 CHANGE P/L AS ABOVE ON SHT 1A

* 63-1791 ALTERED TO SUIT
 THRUST REVERSER TUBING

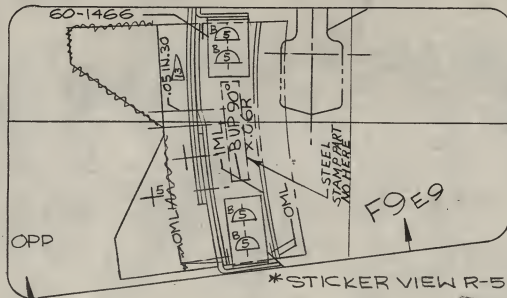
AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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SP 2-4510

A DCN 46 4/5

MODEL 707		516-20-37 DWG. REC. CLK 516-20-59	BOEING AIRPLANE COMPANY		1-76 2T		NOT PROCESS	
DRAFTED M.R. MATTESON		5/9/57	ADVANCE DRAWING CHANGE NOTICE		TRAILING EDGE WING INBOARD NAC. STRUT		DWG. TITLE ASSY OF	
CHECKED H.D. DARTON		5/9/57	REASON: TO MAKE PICTURE AGREE WITH CONFIGURATION OF TAB ON SHT 2A OF 5-85626. (ENGR. ERROR)		ISSUE NO. ITEM 7255		ADCN R-12	
STRESS E.S. Perkins		5/9/57	REASON: TO MAKE PICTURE AGREE WITH CONFIGURATION OF TAB ON SHT 2A OF 5-85626. (ENGR. ERROR)		CHG. NO. 72		DRAWING NO. 5-85626	
APPROVED					SEC. NO.		SHT. 3A	
APPROVED E. Baird 5/16/57					THRU 139 + 301 THRU 1900			
PARTS LIST ZONE		REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL
								HEAT TREAT
								FINISH
								P

ADD STICKER VIEW R-5 AS SHOWN BELOW:



*STICKER VIEW R-5 ZN F9, F10, E9, E10

*ADCN REF.

▷ REWORK EXISTING PARTS & ASSY'S INSTALLED

KC-135 NOT AFFECTED

BAC RELEASED		KC-135	
DWG. REC. CLK		707	
CHECKED	Blakely	5/9/57	
CHECKED	E. Baird	5/16/57	

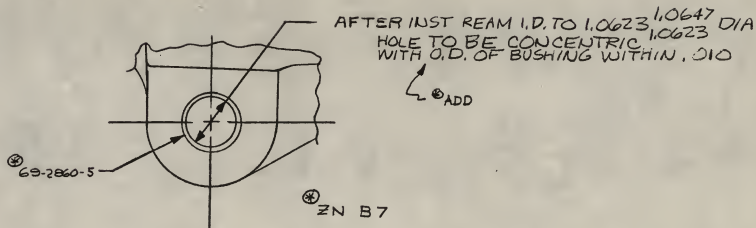
AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS				PART NUMBER	RELEASED IND	DWG. SHEET NO.
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WING

1-72 IT

MODEL 707		816-20-57 DWG REC. CLK		BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ADDN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: ADD REAMED I.D. TO BUSHING		A		SUPPORT ASSY-AFT DRAG INBOARD NACELLE				
DRAFTED SEEGER J.O.F. 6-3-7		906-20-57				ISSUE NO.		DWG. TITLE				
CHECKED <i>L. Schaffer</i> 6/12/57		RELEASE 6-20-57C6				PRR 35000		9		5-72318		J A
STRESS		R REQUESTED				SEC. NO. 12						
APPROVED <i>J. Miller</i> 4/14/7		P		CHG. EFF.								
APPROVED <i>Barley</i> 6-15-57		PROD. INFO.										
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P		

ADD CALLOUT TO DWG. ZN B7, AS SHOWN BELOW ~



Ⓢ ADCN REF. ONLY

R JENSEN, 6-3320

P ASSY'S COMPLETED MUST AGREE

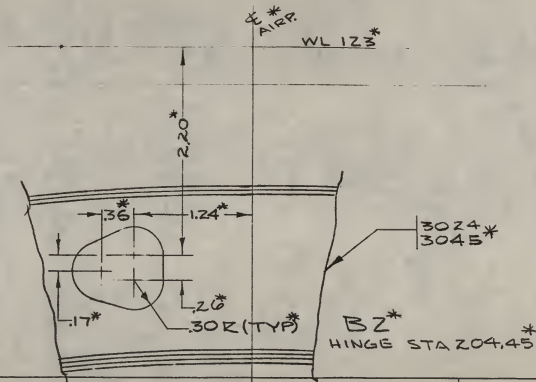
AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS			PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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1-72 1T

MODEL 707	7-1-57 DWG. REC. CLK.	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THIS ADDN <input type="checkbox"/> DEVIATION <input type="checkbox"/> VARIATION REASON: TO PROVIDE CLEARANCE FOR T-R CONTROL ROD		A ISSUE NO. PER 93000 CHG. NO. 72474 1-1994 301-1999 CHG. EFF.		MID FAIRING INSTL ENG: NAL STRUT DWG. TITLE ADCN DRAWING NO. 5-88795 SHT. ZA				
DRAFTED G. WOODS	6-18-57 927-1-57 RELEASE									
CHECKED <i>P. J. L. L.</i>	6/20 7-1-57 M8 B/P GROUP									
STRESS <i>G. L. L.</i>	6/21/57 P. DONALDSON 6-7000 REQUESTED									
APPROVED <i>R. Donaldson</i>	6/21/57 REWORK EXIST. PARTS PROD. INFO.									
APPROVED										
PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P

IN ZONE C3

ADD HOLE THRU -3024, & -3045 AS SHOWN BELOW:



* ADCN REF

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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107 MODEL KC-135		27-1-57 DWG. REC. CLK. 27-1-57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG. WILL BE CHANGED TO INCLUDE THIS ADDN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION		B	6-110 1T SEAL INSTL-STRUT TO WING DWG. TITLE OUTBD NAC		
DRAFTED GROSSMANN	4/2/57	RELEASE 7-7-57	PRR 3922 PRR 9500		ISSUE NO. PRR 3922 PRR 9500	ADCN	DRAWING NO.	SHT.
CHECKED <i>Bj. Hammy</i>	5/1/57	B/P GROUP	<input type="checkbox"/> DIFFICULT FASTENERS REASON: NOT REQD FOR SEAL. (PRR 9500) TO FACILITATE INSTL. OF SEAL WEB-STRUT TO WING		SEC. NO. 74 PRR 3922 56-3607 E ON PRR 9500 55-318 E ON CHG. EFF. ON	12	5-89590	2
STRESS		REQUESTED	PROD. INFO.					
APPROVED <i>W. Hammy</i>	6-27							
APPROVED <i>W. Hammy</i>	4/27/57							
PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT
								FINISH P

PRR 9500:

REVISE CALLOUTS AS SHOWN:

·218·228
·218 DIA HOLE

~~NAS 601-28~~ 52LHTAS21-02
AN 520-DDIO-R8
(6 PLACES)

ZONE B3

·218·228
·218 DIA HOLE


~~NAS 601-28~~ 12LHAI-02
2 PLACES FOR
-4 ONLY

ZONE B3

PRR 9500: PARTS INSTL'D
MAY BE USED WITHOUT
REWORK-PLANNING
IN ACCORD.
PRR 3922: REWORK -19, -20
-21, -22 PARTS NOT INSTL'D
BY TRIMMING FLANGES
TO AGREE WITH
69-5036-5, 69-5036-6,
69-5036-7 & 69-5036-8
RESPECTIVELY.

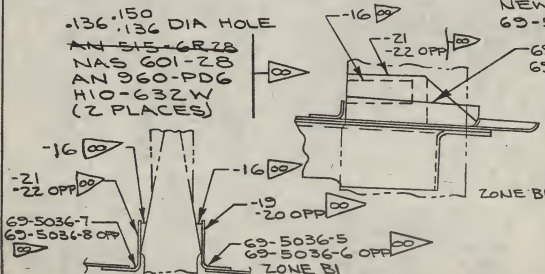
DCR 932-BEED 64510
ROHRBACH 64510


PRR 3922:

IN ZONE B1 ADD  & REVISE
CALLOUT:

·136·150
·136 DIA HOLE

AN 515-6RZB
NAS 601-28
AN 960-PDG
H10-632W
(2 PLACES)



IN ZONES B1 & C3 LIMIT -16, -19, -20 OFF,
& -21, -22 OFF BY ADDING  & ADD
NEW PARTS 69-5036-5, 69-5036-6 OFF,
69-5036-7, 69-5036-8 OFF

69-5036-7
69-5036-8 OFF


-19
-20 OFF
69-5036-5
69-5036-6 OFF

-21
-22 OFF
69-5036-7
69-5036-8 OFF

ZONE C3

ADCN REF ONLY:

5-89590 SHT 1 ADCN #7

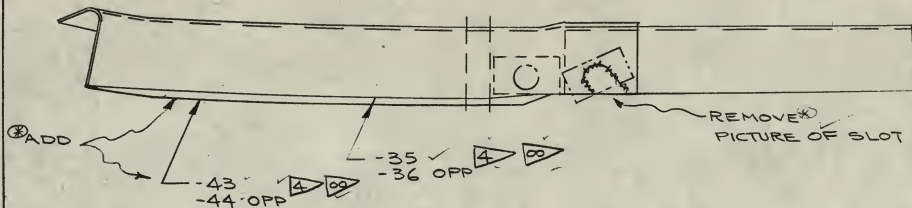
 LIMITED-SEE PARTS LIST
FOR RELEASE

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS			PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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MODEL 707 KC-135	DATE 6/4/57	BY 7-1-57 DWG. REC. CLK. 927-1-57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE REASON: TO PROVIDE FOR SUFFICIENT EDGE MARGIN FOR COWL FASTENERS <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION		B ISSUE NO. PRR 3922 CHG. NO. 74 SEC. NO. 56-3607 40N CHG. EFF.	PANEL INSTL-STRUT TO WING ACCESS, OUTED NAC DWG. TITLE				
DRAFTED GROSSMANN	6/4/57	RELEASE 7-1-7 CP				ADCN	DRAWING NO.	SHT.		
CHECKED B. J. Hawley	6/20/57	B/P UNIT E. CHILDS LIAISON REQUESTED								
STRESS										
APPROVED [Signature]	6-27	<input checked="" type="checkbox"/> PROD. INFO.								
APPROVED [Signature]	6/27									
PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P

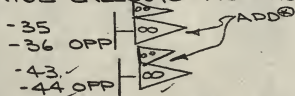
STICKER VIEW ①

④ ADCN REF ONLY



IN ZONE C2 & C3 REVISE PICTURE AS SHOWN, LIMIT -35, -36 OPP BY ④ & ADD -43, -44 OPP ④ ④.

REVISE CALLOUTS AS SHOWN:



ZNS B3 & C4

* ④ LIMITED - SEE PARTS LIST FOR RELEASE.

☒ USE EXISTING -35, -36 OPP PARTS NOT INSTALLED UNTIL SUPPLY EXHAUSTED

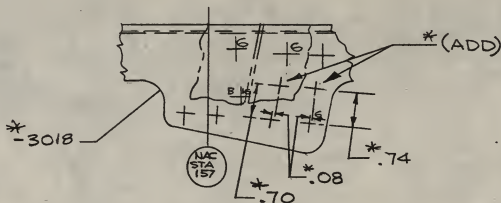
1-60

2T

NOT PROCESS

MODEL 707	817-1-57 DWG. REC. CLK. 927-1-57	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DWG WILL BE CHANGED TO INCLUDE THE ADDITION <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION		ISSUE NO. ITEM 7427	DWG. TITLE LOWER SPAR INSTL.- OUTBOARD STRUT					
DRAFTED M.R. MATTESON	RELEASE 7-1-57 mb			ADCN R-15	DRAWING NO. 8-8122	EXT. 2A				
CHECKED H. DARTON	R/P GROUP ROHR	REASON: REQUIRED HOLE LOCATIONS OMITTED. (ENGRG. ERROR)		SEC. NO. 74						
STRESS Don. Perkins	4-1306 REQUESTED			1 THRU 199 301 THRU 1999 CHG. EFF.						
APPROVED E. Barker	PROD. INFO. P									
PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P

ADD TWO 3/16" HOLE LOCATIONS IN -3018 AS SHOWN:



* ADCN REF.

C5 * ZONE C10

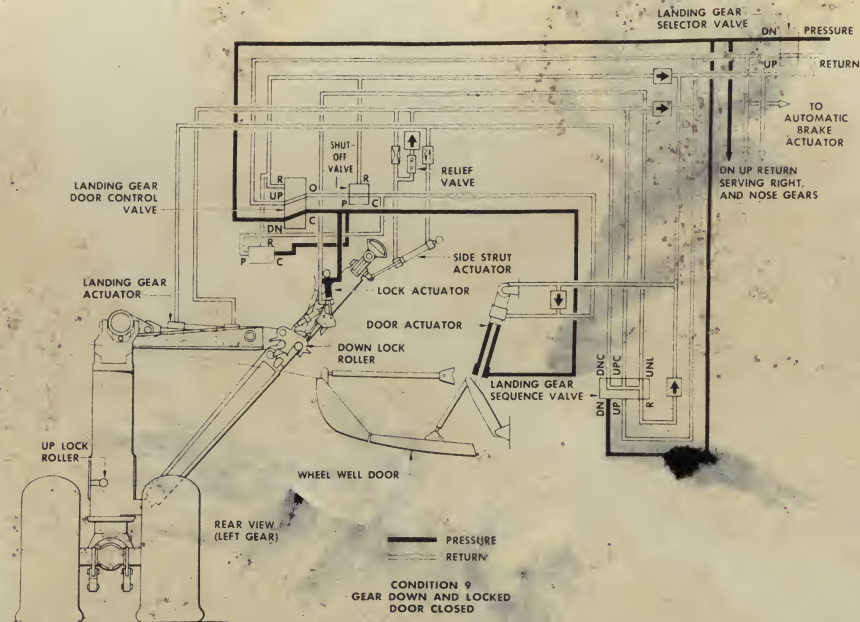
P REWORK EXISTING PARTS & ASSY'S INSTALLED

KC-135 NOT AFFECTED

<input checked="" type="checkbox"/> SAC RELEASED	<input type="checkbox"/> KC-135
<input type="checkbox"/> CANC'D	
CHECKED Blakeslee	4/9/57
CHECKED	
APPROVED Perkins	6/25/57

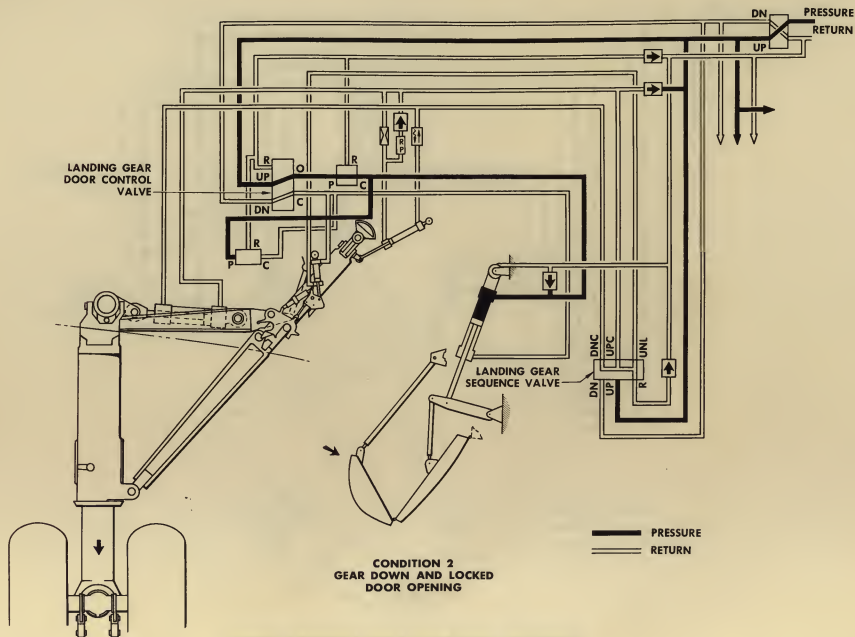
AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS 581-502		PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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ITEM OR COMPONENT		DETAIL LUBRICATION LIST FOR 707 AIRPLANES					PAGE NO. 52 OF 65 PAGES
WING FLAPS L.H. AND R.H.		BOEING AIRPLANE COMPANY SEATTLE 14, WASHINGTON					MFGRS. NO. D 6-1539
							DATE LAST REVISION 11/18/57
							DATE APPROVED
ITEM NO.	LUBRICATION POINT	BEARING TYPE	LUBRICANT	METHOD OF APPLICATION	NO. OF APPLICATION POINTS	LUBRICATION INTERVAL	REMARKS
1	Carriages - Center	RD N	MIL-G-3278 MIL-G-3278	Gun Gun	12 8	#h #h	Flush Fitting (Dwg. 5-87846). Flush Fitting
2	Carriages - End	RD N	MIL-G-3278 MIL-G-3278	Gun Gun	24 16	#h #h	Flush Fitting (Dwg. 5-87847). Flush Fitting
3	Flap & Spoiler Metering Valve Assy	-	MIL-O-5606 or Skydrol 500 (As appli- cable)	Fill	6/airplane	#h	Gear case (Dwg. 50-6875).

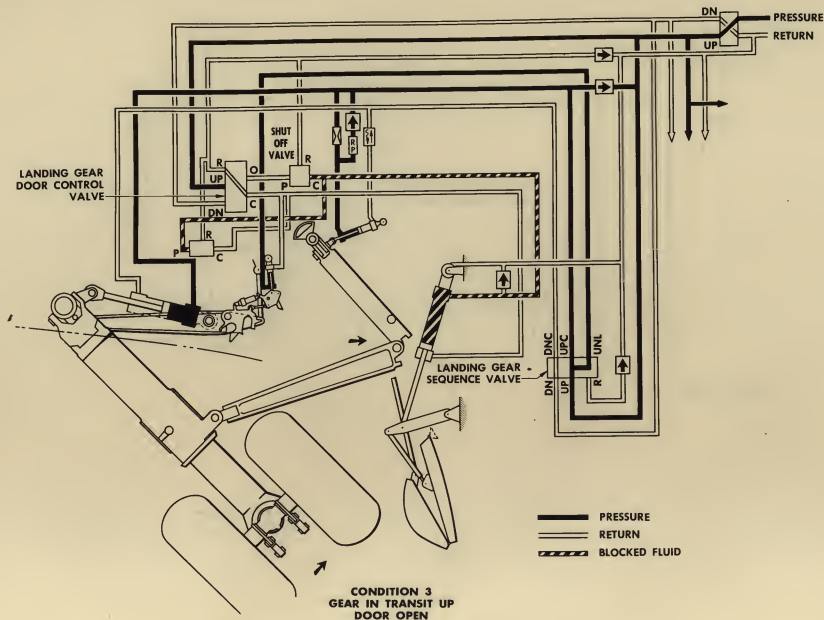


MAIN LANDING GEAR OPERATING SEQUENCE

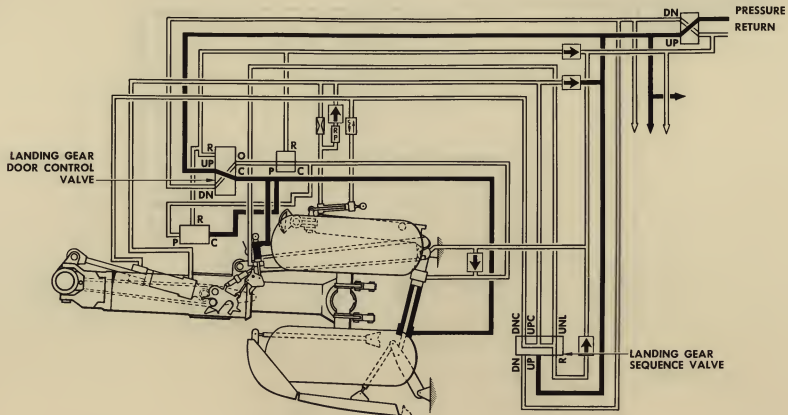




MAIN LANDING GEAR OPERATING SEQUENCE



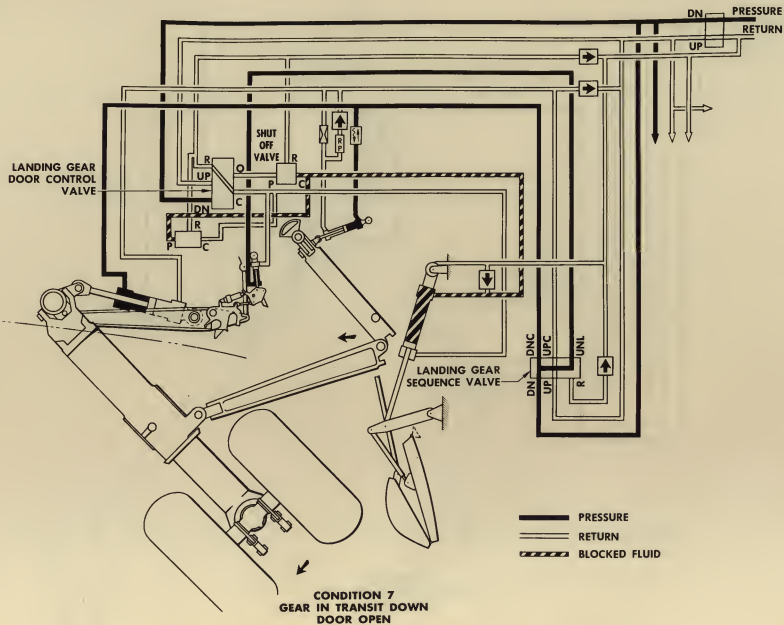
MAIN LANDING GEAR OPERATING SEQUENCE



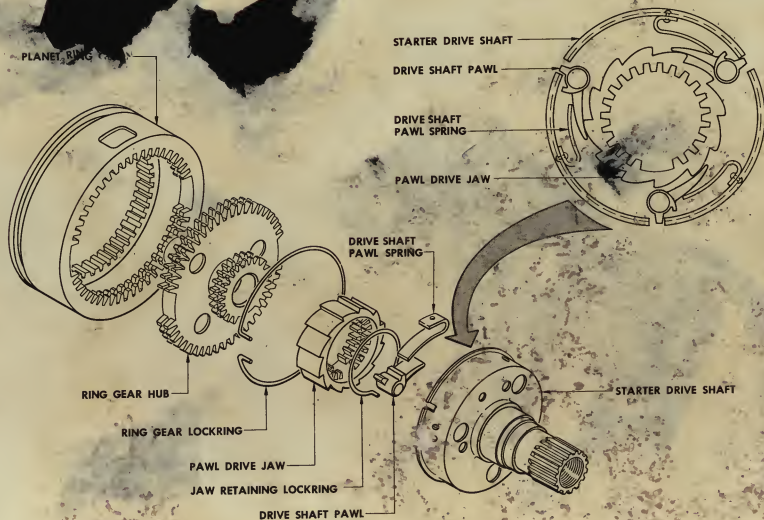
— PRESSURE
 --- RETURN

CONDITION 5
 GEAR UP AND LOCKED
 DOOR CLOSED

MAIN LANDING GEAR OPERATING SEQUENCE



MAIN LANDING GEAR OPERATING SEQUENCE



STARTER CLUTCH SCHEMATIC

5-20 6T

MODEL	707	DWG. REC. CLK.	326-27-57
DRAFTED	FRONSDAHL	DATE	4/11/57
CHECKED	SHUMAN	RELEASE	6-24-57
STRESS	W. BING	S/P GROUP	G.DREW
APPROVED	W. BING	REQUESTED	G-7000
APPROVED	W. BING	PROD. INFO.	6-25-57

BOEING AIRPLANE COMPANY

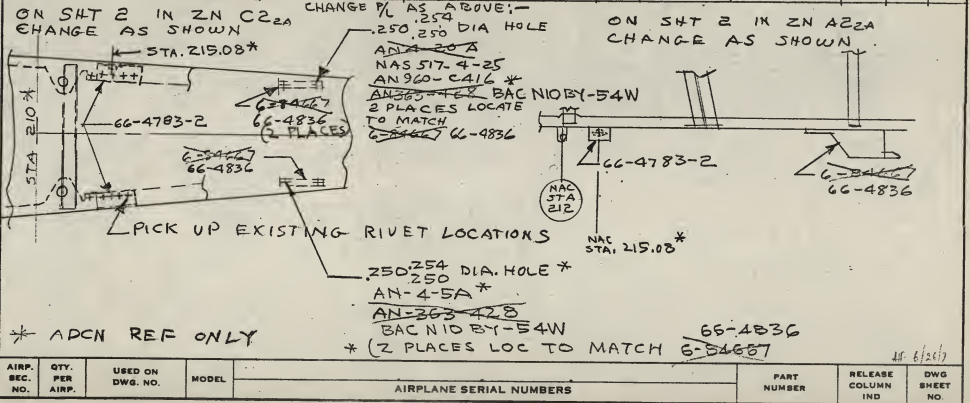
ADVANCE DRAWING CHANGE NOTICE

REASON: TO ADD ANGLE AND CHANGE PIN ON DRUG.

☐ DEVIATION ☐ VARIATION

LOWER SPAR INST'L OUT BD STRUT.			
ISSUE NO.	7853	DWG. TITLE	ADCN
CHG. NO.	15	DRAWING NO.	8-8122
SEC. NO.	74		1A
1-199			2A
301-1999			
CHG. EFF.			

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
	NEW	L	2	66-4783-2	ANGLE					
		L	2	NAS 5174-25	SCREW 100° F.H.					
		L	2	66-4836	PIN FITTING					
41		L	2	6-84667	PIN FITTING					
42		L	2	AN-4-20A	BOLT					
40		L	2	AN-363-428	NUT					
40	AN 363-428	L	4	BAC-NIOBY-54W	NUT					



AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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707

MODEL 707

DRAFTED FRONSDAHL 4/15/57

CHECKED: S. HUMAN

STRESS 1/2 3 4/18

APPROVED [Signature] 4/19/57

APPROVED [Signature] 6/25/57

RECEIVED 6-25-57

279-57

DWG. REC. CLK 277/1357

RELEASE

B/P GROUP

G. DREW 6-70-70 REQUESTED

PROJ. INFO

BOEING AIRPLANE COMPANY

ADVANCE DRAWING CHANGE NOTICE

THE DWG. WILL BE CHANGED TO INCLUDE THIS ADDN

☐ DEVIATION ☐ VARIATION

REASON: TO ADD ANGLE & CHANGE PIN ON DRWG.

8-20 6T

LOWER SPAR INST L IN B.D. STRUT

DWG. TITLE

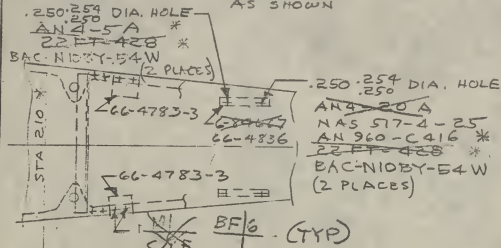
ADCN	DRAWING NO	SHT
7853	5-8100	1A
74	5-8100	3A
1-199	8-8100	1A
301-1999	8-8100	3A

CHG. EFF.

PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
NEW	✓	✓	2	66-4783-3	ANGLE					
	✓	✓	2	NAS517-4-25	SCREW 100° FH.					
	✓	✓	2	66-4836	PIN FITTING					
	✓	✓	2	6-84667	PIN FITTING					
	✓	✓	2	AN4-20A	BOLT					
	✓	✓	4	AN365-428	NUT					
AN 36: 428	✓	✓	4	BAC-NIOBY-54W	NUT					

ON SH-1A CHANGE P/L AS ABOVE:-

ON SHT 3A IN ZN C5A REVISE AS SHOWN

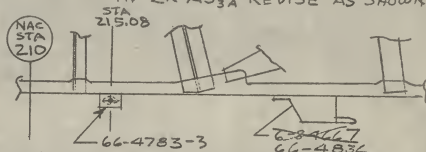


* ADCN REF. ONLY.

EXISTING PARTS MAYBE USED WITHOUT REWORK

ON SHT-3A

IN ZN A5A REVISE AS SHOWN



REPLACES ADCN #13 ON SH-1A #7 ON SH-3A

IN P/L AND F/D CHANGE 66-4783 TO 66-4783-3 CHG. NR PRR 10826

REASON:- ENG ERROR

DRAWN BY: G. WOODS

CHKD BY: [Signature] 7/19/57


APPRD: [Signature] 7/19/57

APP 6/26/57

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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WING

4-68 IT REJ TAG 291993 & 291994

MODEL 707		D17-30-57 DWG. REC. CLK	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE CHG WILL BE CHANGED TO INCLUDE THIS DESIGN <input type="checkbox"/> DEVIATION <input checked="" type="checkbox"/> VARIATION REASON: WRONG FINISH FOR WET BAY AREA.		ISSUE NO. 95000 CHG. NO.	SUPPORT - FRONT SPAR, DWG. TITLE OUTFD NACELLE	
G. BERESFORD DRAFTED	7/21/7	7/21-30-57 RELEASE			ADCN	DRAWING NO.	SHT.
CHECKED <i>JR Green</i>	7/21/7	7-30-57 B/P GROUP			2	50-8218	—
STRESS —		REJ TAG 291993 & 291994 REQUESTED			SEC. NO. 12		
APPROVED <i>Wick</i>	7/25/7		1-1999 CHG. EFF.				
APPROVED		PROD. INFO.					

PARTS LIST ZONE	REPLACES	REQD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
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-1

-2

~~F2.20~~

F2.22

~~F2.20~~

F2.22

CHG FINISH CALLOUT IN P/L AS SHOWN ABOVE:



REWORK EXISTING DETAILS
BY STRIPPING ALL PRIMER
A/P #1,2,3 IN ACCORD -

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS			PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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TR 17/24/7

PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
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▼ ADCN REF

1.7000

6-20 NOT PROCESS 47

MODEL 707	DATE 6/1	707-30-52 JWG. REC. CLK. 7-30-57
R. MATTESON DRAFTED	RELEASE 7-30-57	B/P GROUP R-11
CHECKED DARTON	6/10/57	4-1382 REQUESTED
STRESS HECHT	6/10/57	PROD. INFO.
APPROVED <i>[Signature]</i>	6/10/57	
APPROVED <i>[Signature]</i>	6/10/57	

BOEING AIRPLANE COMPANY

ADVANCE DRAWING CHANGE NOTICE

THE CHG. WILL BE CHARGED TO INCLUDE THIS ADDN

☐ DEVIATION ☒ VARIATION

TO INSURE POSITIVE LOCATION OF
REASON: IRREGULAR OML'S & HOLD
FRAMES RELATIVE TO BOTH LONGERONS
& ATTACH POINTS. (MFG. FACILITY)

ISSUE NO. PRR 10087	ADCN R-2	DRAWING NO. 5-85637	SHT. 1A
CHG. NO. 71	R-1	5-85637	3A
SEC. NO. 1 THRU 122			
301 THRU 1999			
CHG. EFF.			

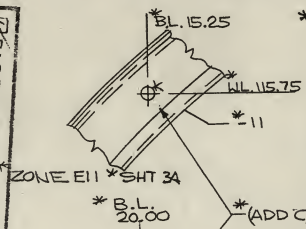
PARTS LIST ZONE	REPLACES	RECD	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
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SHT 3A, ADD COORDINATING HOLES AS SHOWN BELOW:

CHECKED
[Signature]

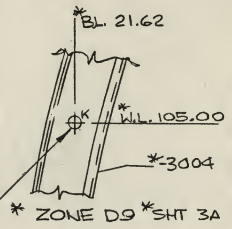
CANCELLED BY BAC ADD. 1
707

KC-135



* THIS CHG. INCOMPLETE WITHOUT

ADCN	SHT	DWG.
R-2	3A	5-85637
Ri-2	4A	
Ri-3	4A	
Ri-4	4A	
Ri-1	100	
Ri-2	100	
Ri-3	100	5-85637

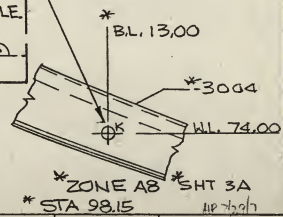


SHT 1A, ADD TO GENERAL NOTES AS FOLLOWS:

(ADD) ϕK .250/.260 COORDINATING HOLE.

(ADD) ϕK .250/.247 COORDINATING HOLE.

PLUG COORDINATING HOLES WITH $\frac{M}{B}$ IN -3029 FRAME ONLY.



* ADCN REF.

* ZONE B11 * SHT 3A

* STA. 89.50

EXISTING PARTS & ASSY'S MAY BE USED WITHOUT REWORK.

FOR KC-135 SEE ADCN'S R-13 5/1 & R-11 5/3 ON 5-85637

* ZONE AB * SHT 3A

* STA 98.15

ATRP. REC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS			PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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MODEL 707
 R. MATTESON
 DRAFTED
 CHECKED *DARTON*
 STRESS HECHT 6/10/57
 APPROVED *E. Buehler* 6/14/57
 APPROVED *G. H. Simpson* 6/13/57

077-30-57
 DWG. REC. CLK.
 707-50-57
 PLEASE
 7-30-57
 B/P GROUP
 ROHR
 4-1386
 REQUESTED
 PROD. INFO.

BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE

THE DRAWING WILL BE CHANGED TO INCLUDE THIS ASH
☐ DEVIATION ☒ VARIATION
 TO INSURE POSITIVE LOCATION OF
 REASON: IRREGULAR OML'S & HOLD
 FRAMES RELATIVE TO BOTH LONGERONS
 & ATTACH POINTS (MFG. FACILITY)

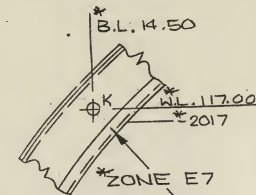
176-72 NOT PROCESS
 COWL PANEL ASSY L.H.
 SIDE ENGINE NACELLE
 DWG. TITLE
 ISSUE NO. PRR10087
 CHG. NO. 71
 SEC. NO. 1 THRU 199
 301 THRU 1999
 CHG. EFF.

ADCN	DRAWING NO.	SHT.
Ri-3	5-85637	4A

PARTS LIST ZONE	REPLACES	READ	PART NUMBER	NOMENCLATURE	ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P
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ADD COORDINATING HOLES AS SHOWN BELOW:

THIS CHG. INCOMPLETE WITHOUT		
ADCN	SHT	DWG.
Ri-2	1A	5-85637
Ri-1	3A	
Ri-2	3A	
Ri-2	4A	
Ri-4	4A	
Ri-1	100	
Ri-2	100	
Ri-3	100	5-85637



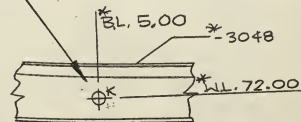
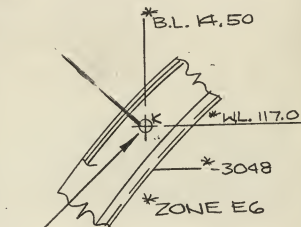
*ZONE AG
 *STA 152.75

*ADCN REF.

*(ADD COORDINATING HOLES)

☒ BAC RELEASED ☐ KC-135
☐ CANCELED BY BAC ACC. ☒ 707

CHECKED *Blakeslee* 7/2/57
 CHECKED
 APPROVED *R. Larson* 7/2/57



*ZONE A5
 *STA 161.50

EXISTING PARTS & ASSY'S MAY BE USED WITHOUT REWORK.

FOR KC-135 SEE ADCN Ri-10 3/4 ON 5-85637

AIRP. SEC. NO.	QTY. PER AIRP.	USED ON DWG. NO.	MODEL	AIRPLANE SERIAL NUMBERS	PART NUMBER	RELEASE COLUMN IND	DWG SHEET NO.
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FIELD SERVICE REPORT

BOEING AIRPLANE COMPANY

SEATTLE DIVISION
ENGINEERING
SERVICE SECTION

PILOTLESS AIRCRAFT
DIV. FIELD
OPERATIONS DEPT.

WICHITA DIVISION
ENGINEERING
SERVICE SECTION

TRANSPORT DIVISION
ENGINEERING
SERVICE SECTION

SUBJECT: FAS Air Bottle Control Valve, KC-135.

CLASSIFIED ☐

UNCLASSIFIED ☒ *MA 0607*

ROUTING:

ORIGINAL

OFFICE
BASE FILE

CC.

SERVICE
DEPT.
FILE

0106

The reference advised that an improved model of the subject, P/N 38EL3-8A, has failed to be a significant improvement over earlier models, P/N 38EL3-3A and 840891. Service experience and number of failures of each model was requested.

Air Force U.R.'s and BAC Edits indicate the following valve removals:

A/C	Date	P/N	S/N	Valve T/T	Removed For
58-001	3/23/59	840891	--	19 Hrs.	Air Leak
57-2609	4/23/59	"	790 OK	42 "	Air Leak
58-001	8/19/59	"	713	268 "	Failed Relief Valve
58-006	9/10/59	"	786	270 "	Loose Gage
57-2594	9/29/59	"	685	347 "	Air Leak
58-097	11/27/59	"	691	140 "	Gage Sticks
57-2609	2/18/60	38EL3-8A	67-U	157 "	Air Leak at Vent

Supply records show that in the last 365 days 17 P/N 840891 valves have been issued. No P/N 38EL3-3A or -8A valves have been issued. Unfortunately, this activity has had little service experience with the P/N 38EL3-8A valve.

Please type -

Frank A. Britt
Frank A. Britt
Field Service Engineer

FAB:ps

edit
52432

Frank A. Britt
Bergstrom AFB

REPORT NO. BERGAFB-910-75F
LOCATION Austin, Texas

DATE 21 June 60

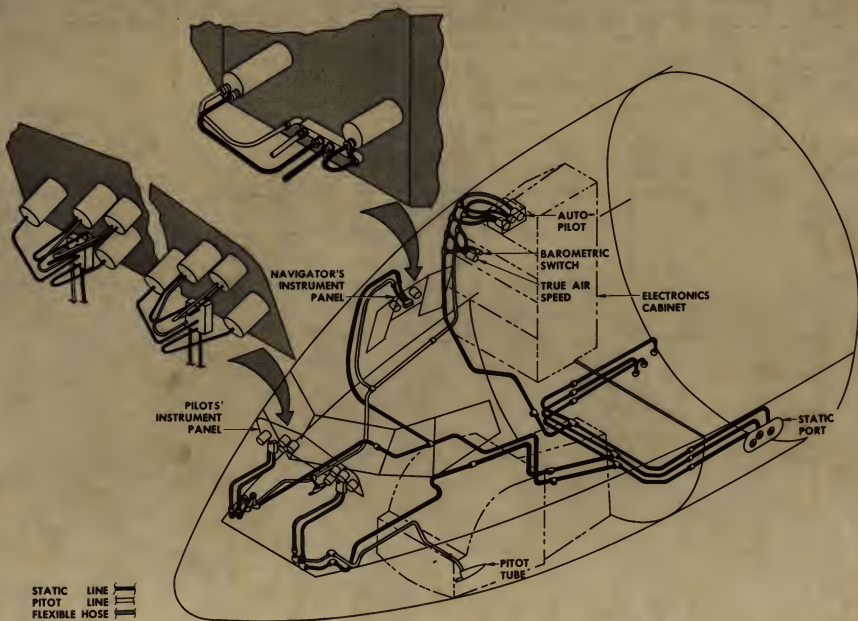
FAS Air Bottle Control Valve, KC-135.

MODEL KC-135.

6-7171-1-12560, dated June 15, 1960

FSR FSR FSR FSR FSR FSR FSR

☒ ART ☐ WRITTEN[illegible]



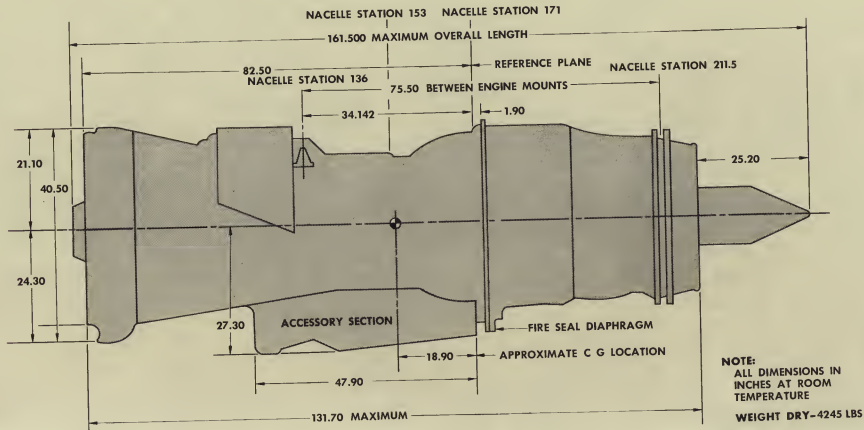
PITOT STATIC SYSTEM LOCATION

ELR NO.	813	MODEL NO.	707	216-24-57 DWG. REC. CLK R 46-25-57 RELEASE 1-15-57 B/P GROUP NO CHANGE SEE BELOW	BOEING AIRPLANE COMPANY ADVANCE DRAWING CHANGE NOTICE THE DRAWING WILL BE CHANGED TO INCLUDE THIS AS A VARIATION REASON: TO PROVIDE PROPER FINISH		A ISSUE NO. PLC 5000 CHG. NO. SEC. NO. 53 1-1999 CHG. EFF.		SUPT. ANGLE-THRUSTLE CONTROL -374 600 DWG. TITLE				
DRAFTED	PKA	4/5/57							ADCN	DRAWING NO.	SMT.		
CHECKED	R. Smith	6/15/57							1	69-1925			
STRESS													
APPROVED	Brill	6-20-57											
ORIGINATOR				PHONE				PLANNING				PHONE	
REQ.				ENGINEERING LIAISON REQUEST				PEKASKY				E-169	
APP.													
DEPT.													
BOX NO.				90-19				BOX NO.				91-90	
PARTS LIST	REPLACES	REQD.	PART NUMBER	NOMENCLATURE			ZONE CODE	STOCK SIZE (APPROX. NET)	MATERIAL	HEAT TREAT	FINISH	P	
			-4								E24F S2F 2115		
			-5								E24F S2F 2115		

CHANGE P/L AS SHOWN ABOVE

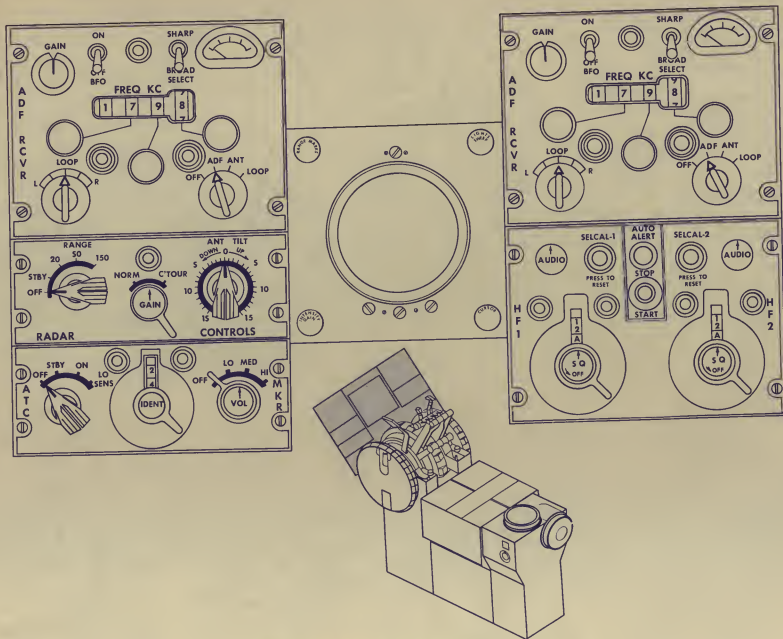
HF 6/21

PROD. INFO	APL 001 \$ ON MUST COMPLY	
STATUS OF TOOL	PLANNING AFFECTED	STATUS OF COMPLETED
OR PLANNING	REWORK	AIR, & OR CASE

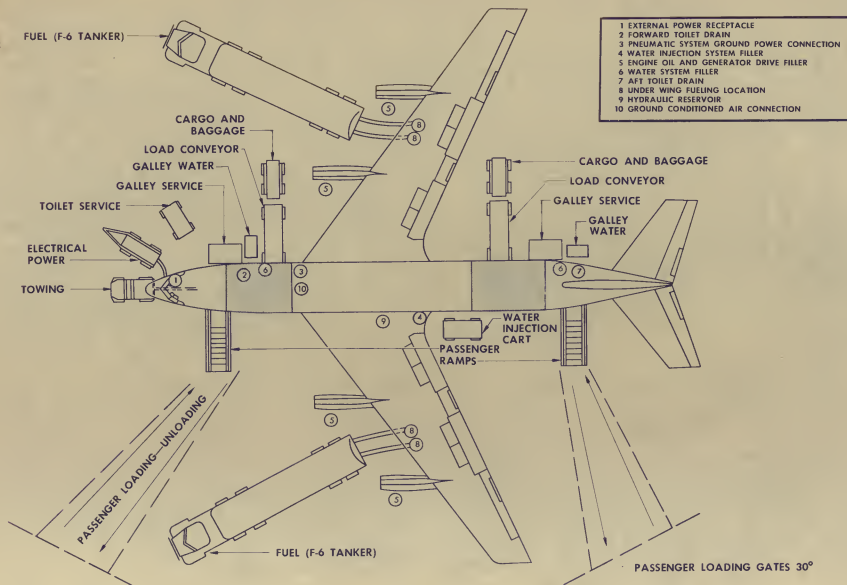


cancel

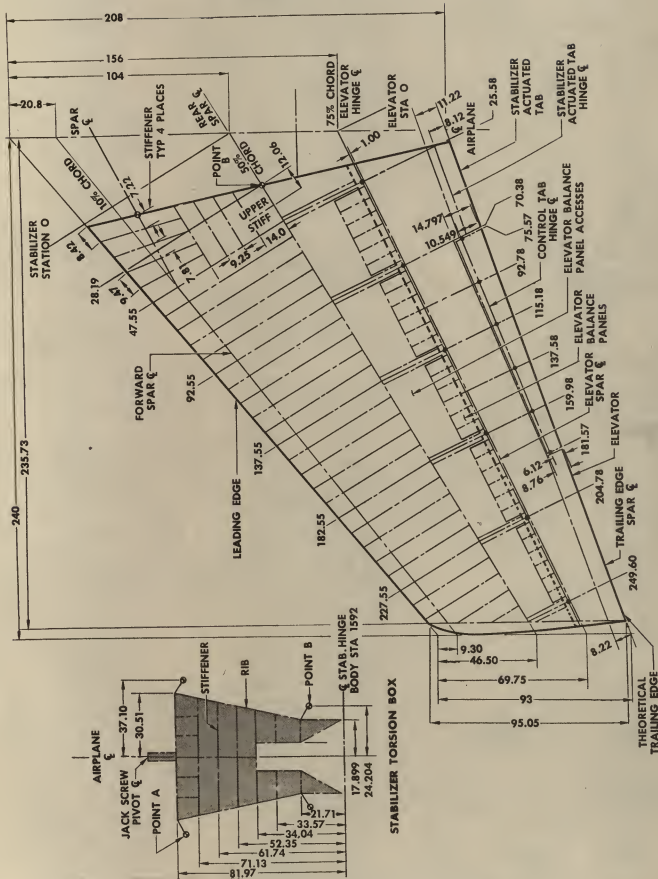
OVERALL DIMENSIONS-JT3C-4 ENGINE



FORWARD ELECTRONIC CONTROL PANEL



TYPICAL TERMINAL SERVICING ARRANGEMENT



Stabilizer and Elevator Centerline Diagram
Figure 3

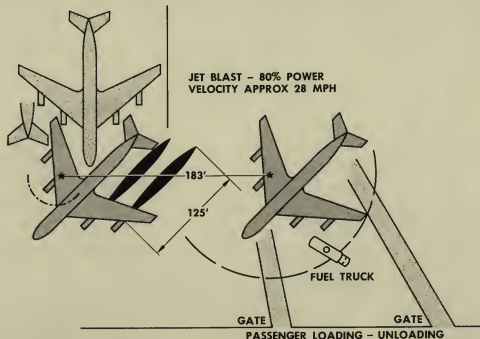
May 20/57

**CANTED PARKING
NOSE IN**



ADVANTAGES:

- 1 NO STARTING BLAST TO AFT AIRPLANES
- 2 PASSENGER LOADING FROM ONE GATE IF DESIRED
- 3 ADEQUATE AREA FOR REFUELING WITHOUT PASSENGER LOADING CONGESTION

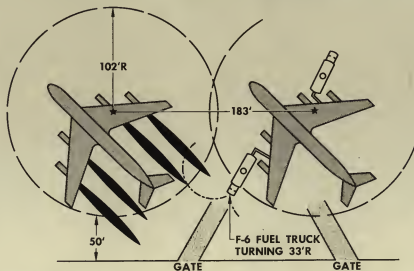


**CANTED PARKING
NOSE OUT**

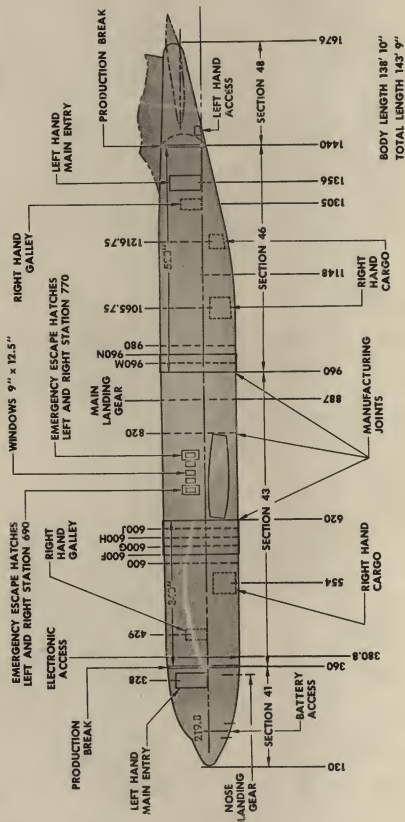


ADVANTAGES:

- 1 RAPID DEPARTURE
- 2 TAXI BLAST CONFINED TO RAMP AREA OF DEPARTING AIRPLANE ONLY

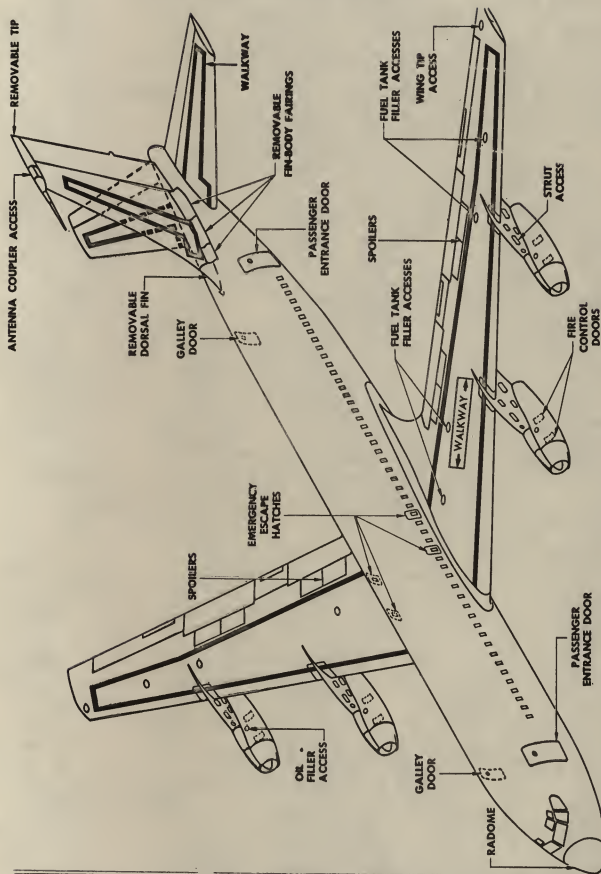


TYPICAL PARKING



Windows, Doors and Body Length
Figure 201

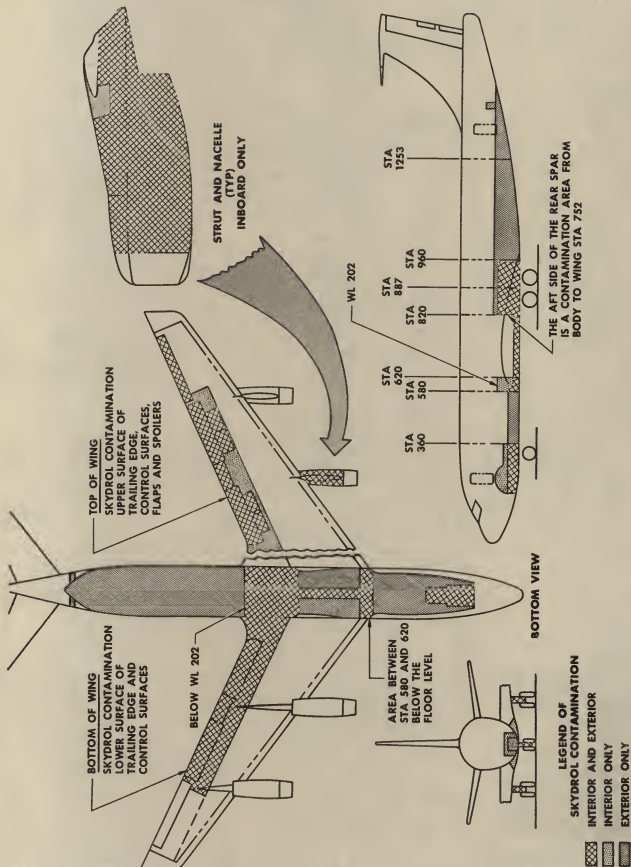
BOEING 707 Stratoliner
MAINTENANCE MANUAL



Walkways, Access Doors and Inspection Openings - Top View
Figure 202

May 20/57

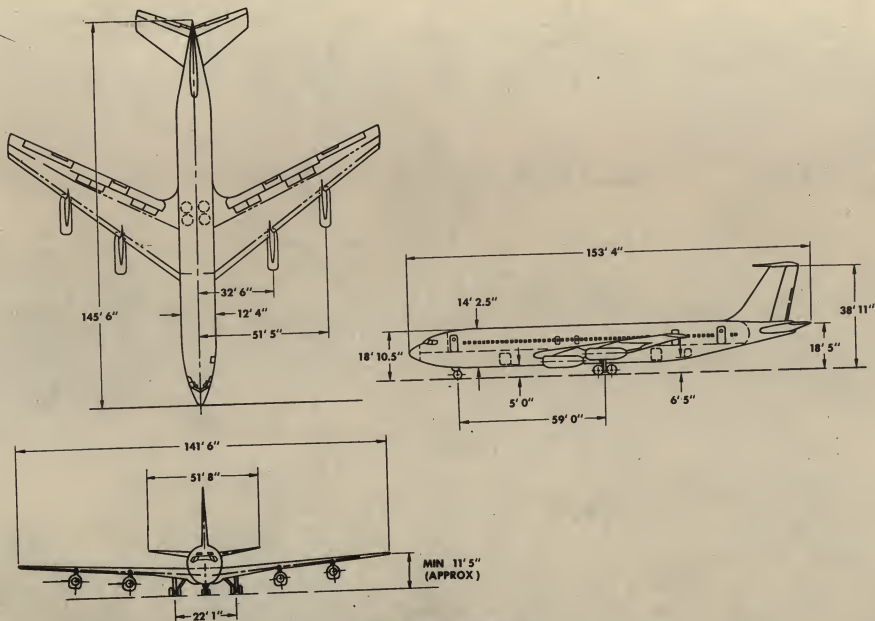
END
12-2-0
Page 203



Anticipated Skydrol Contamination Areas
Figure 201

May 20/57

END
12-3-0
Page 201



PRINCIPAL DIMENSIONS

FIG. 1

9 AUGUST 1956

707-328 2101 THRU 2199

1224

D-17709-7

10.40

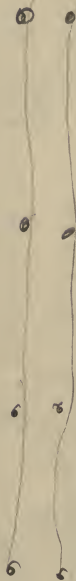
T 575

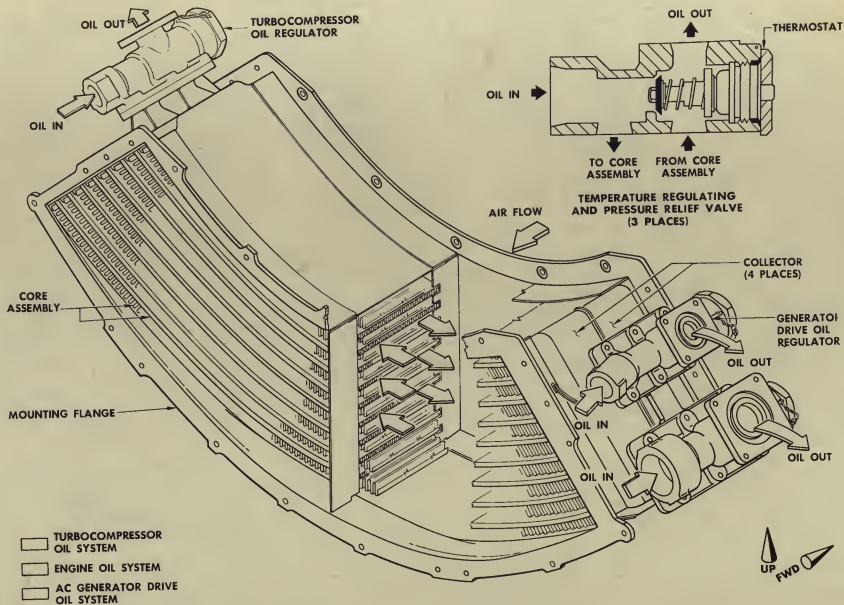
5P74

10.53

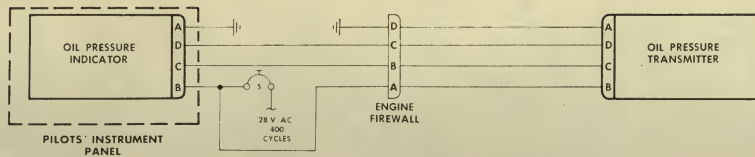
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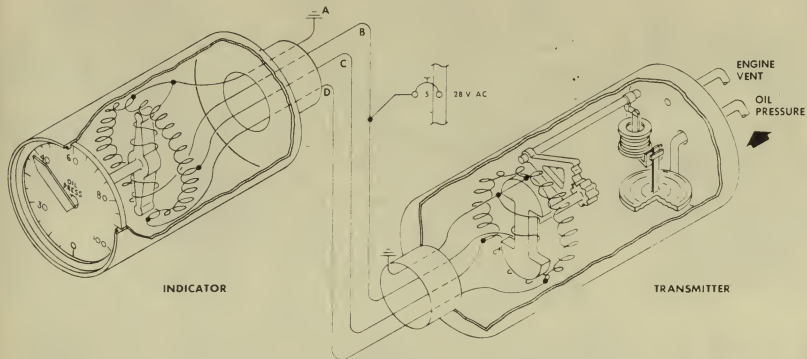




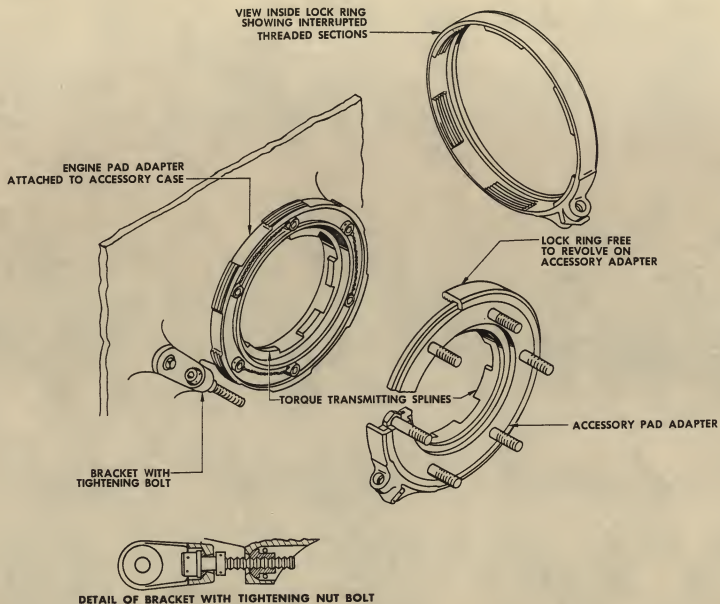
ENGINE OIL COOLER AND BYPASS VALVE ASSEMBLY



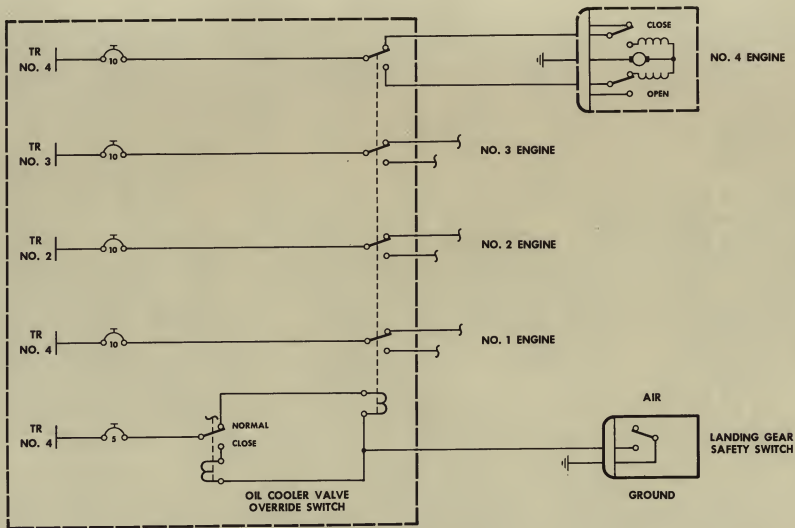
TYPICAL—ENGINES 1, 2, 3, 4



OIL PRESSURE INDICATING SYSTEM SCHEMATIC

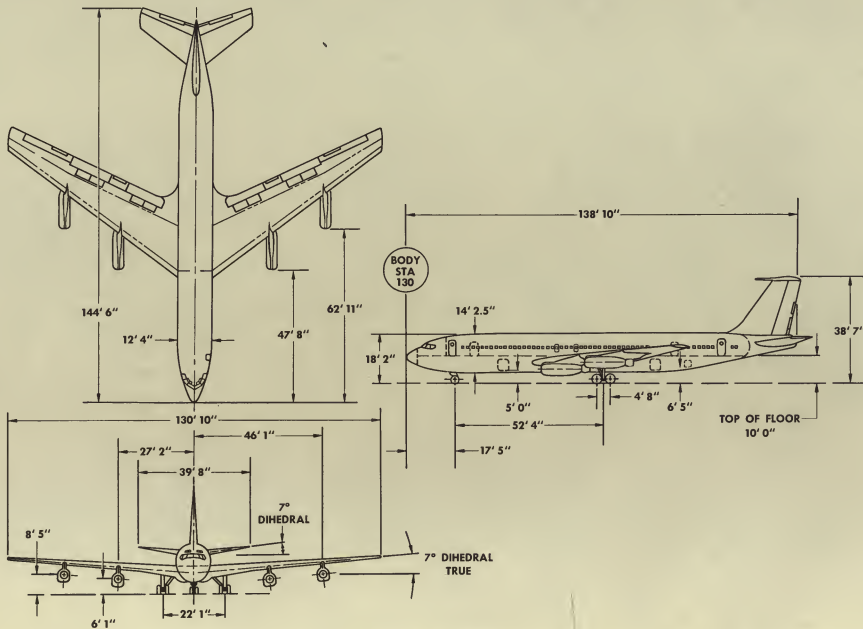


FUEL PUMP AND FUEL CONTROL QUICK-DISCONNECT

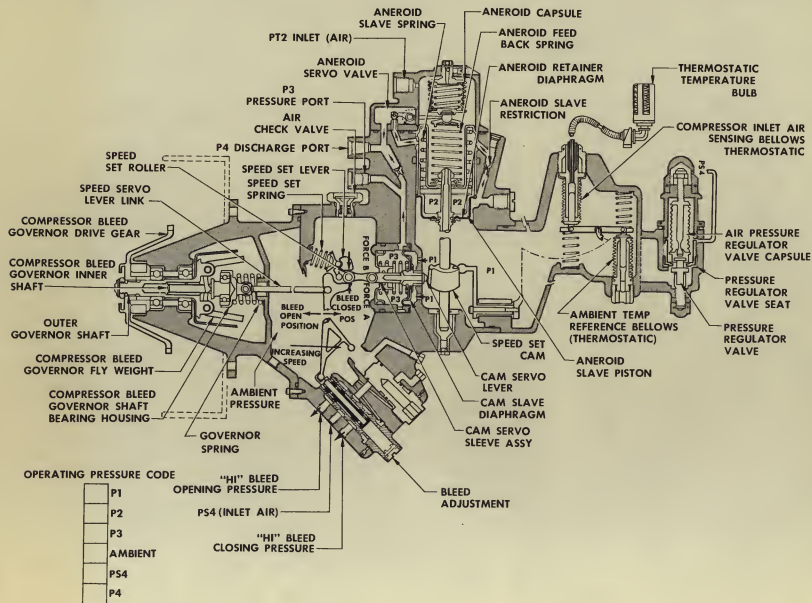


FLIGHT ENGINEER'S PANEL

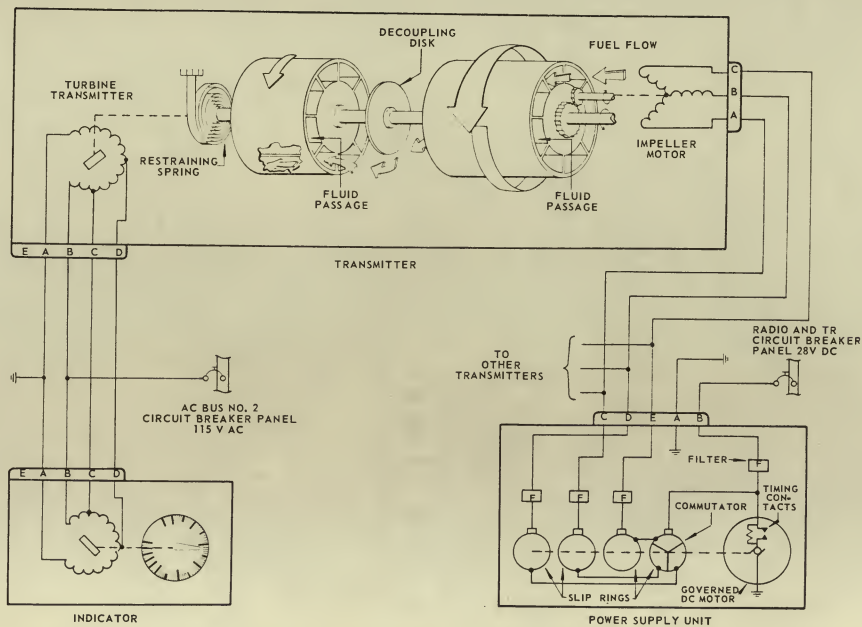
OIL COOLER EJECTOR VALVE OVERRIDE



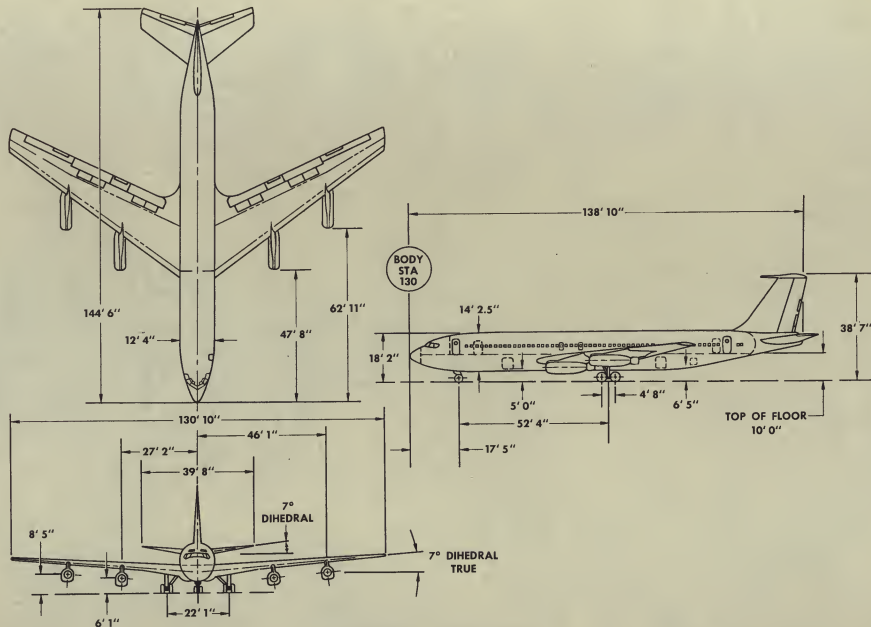
PRINCIPAL DIMENSIONS



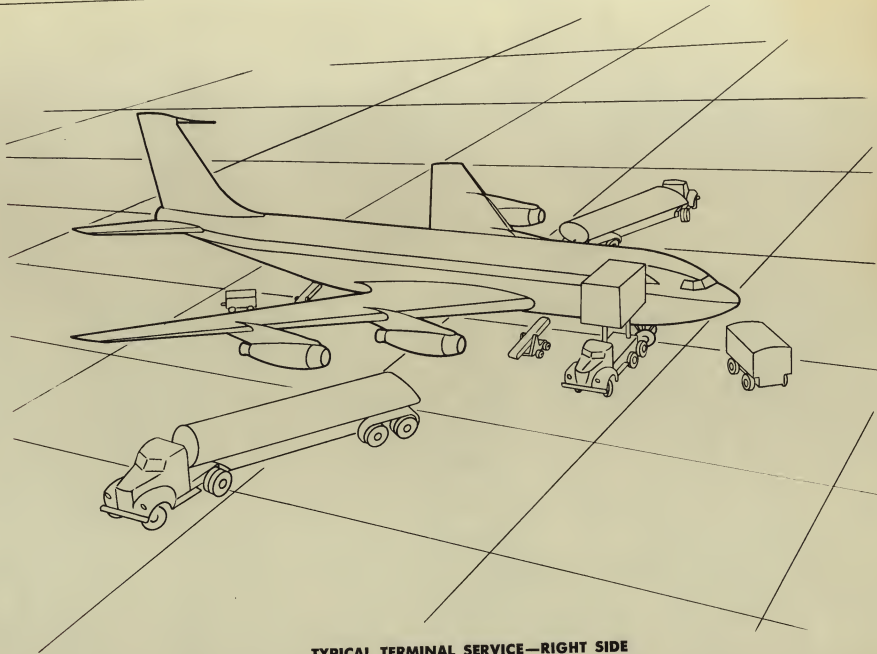
SURGE BLEED GOVERNOR

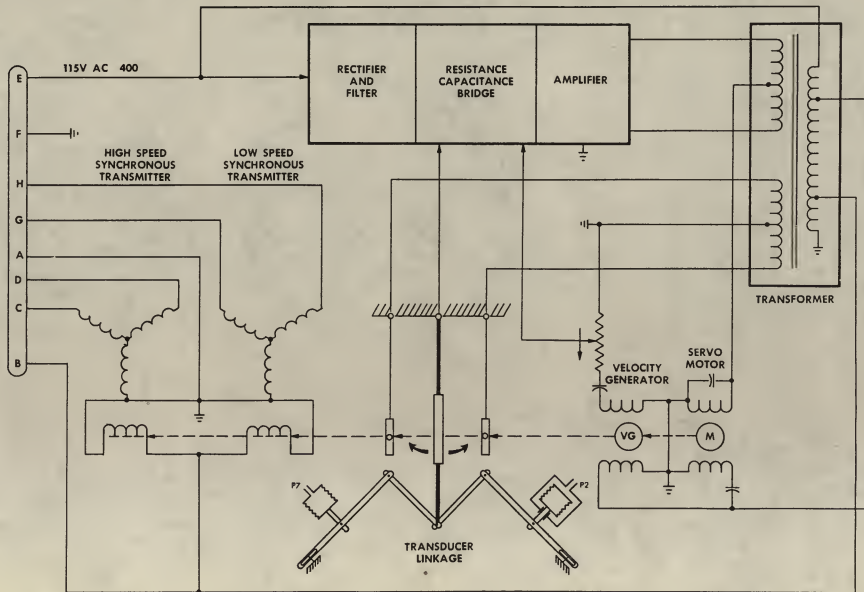


FUEL FLOW INDICATING SYSTEM SCHEMATIC

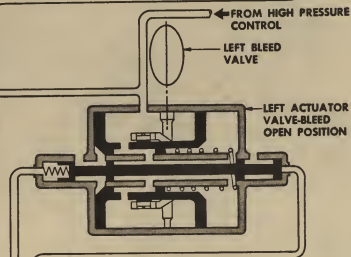
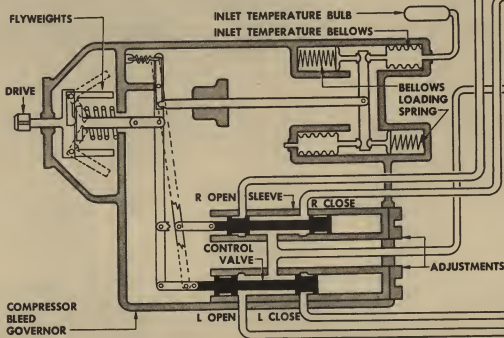
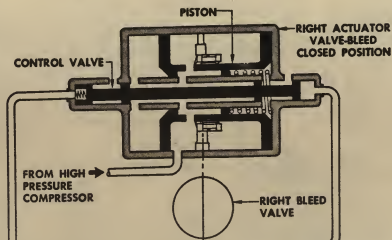
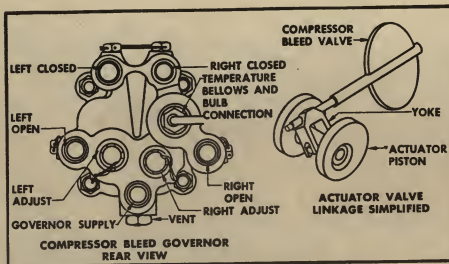


PRINCIPAL DIMENSIONS



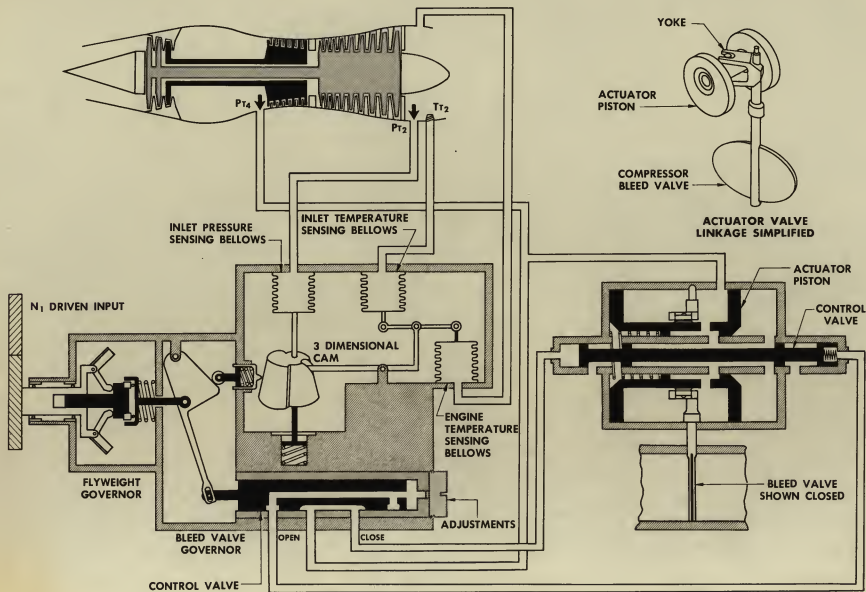


ENGINE PRESSURE RATIO TRANSDUCER OPERATIONAL SCHEMATIC

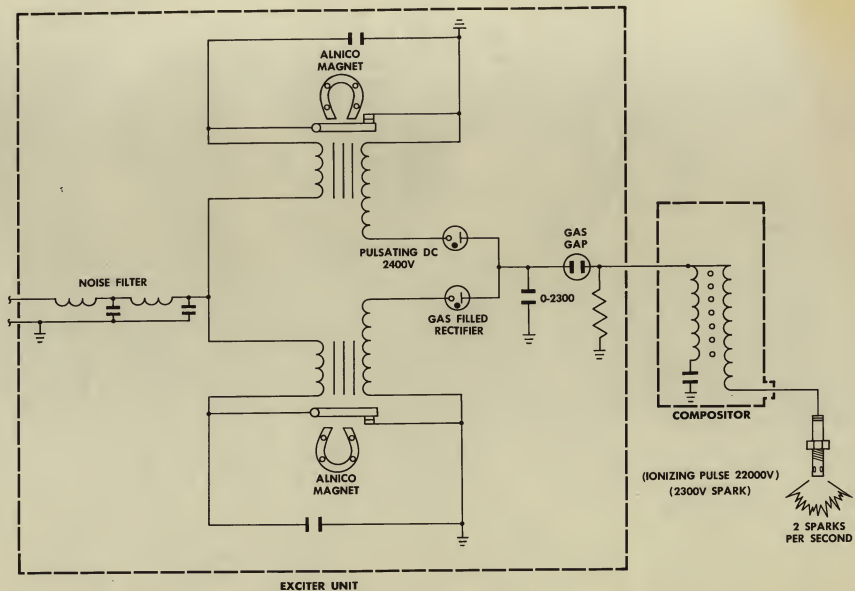


☐ PT₄ PRESSURE
☐ GOVERNOR CONTROLLED PRESSURE

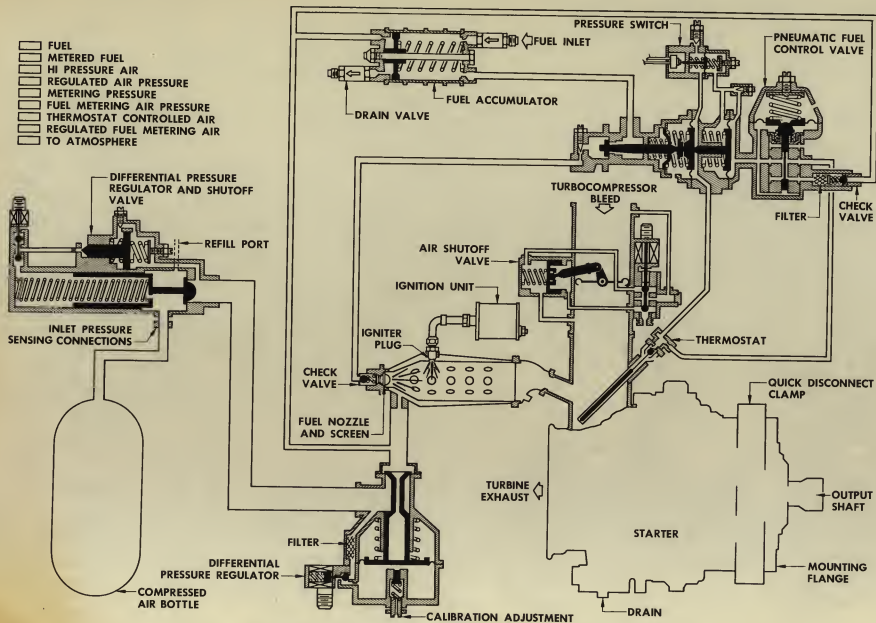
ENGINE COMPRESSOR SURGE CONTROL BLEED SYSTEM SCHEMATIC



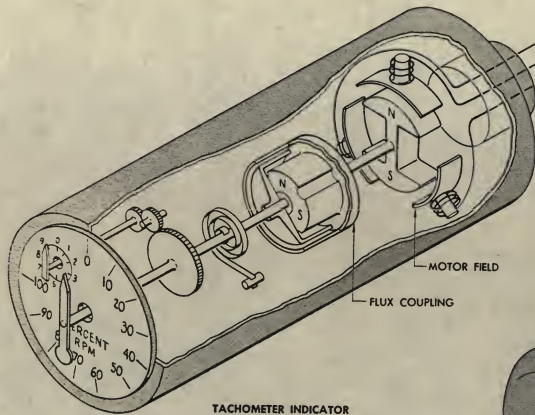
SURGE BLEED CONTROL



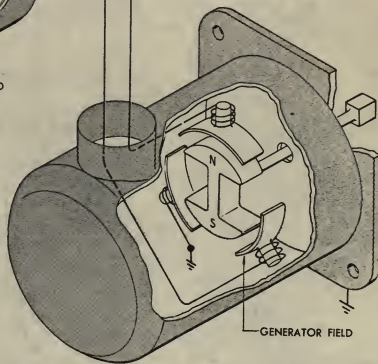
ENGINE IGNITION



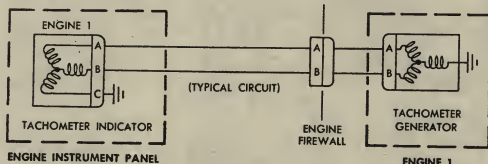
ENGINE PNEUMATIC STARTER CONTROL SYSTEM



TACHOMETER INDICATOR



TACHOMETER GENERATOR



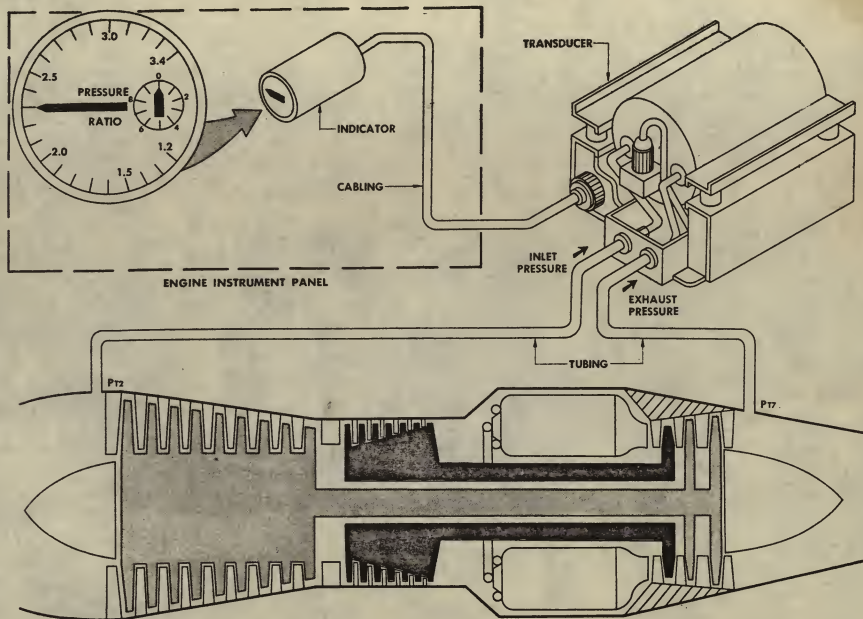
ENGINE SPEED INDICATING SYSTEM

10.32
T-56

20 OCTOBER 1955

KC-135 55-3118 AND ON

SP26



ENGINE PRESSURE RATIO SYSTEM ARRANGEMENT

WKB001

PP RUWKBF

DE RUWK

ZUI RUWKBF 19A ZDK WKA063

WKA063EUD175MC0222

PP RUWKBF

DE RBEGUP 027

P 221817Z

FM AFESO BAR EAST HARTFORD CONN

TO RJWFNH/COMDR SAAMA KELLY AFB TEX

INFO RJWFNK/COMDR OCAMA TINKER AFB OKLA

RJWXBR/COMDR SAC OFFUTT AFB NEBR

RUWKBF/AFPR BAC SEATTL WASH

RJEDSQ/COMDR AMC WPAFB OHIO

RJEDSQ/COMDR WADC WPAFB OHIO

RJEBKG/AFPR BAC WICHITA KAN

RBEGTDS/HAMILTON STANDARD WINDSOR LOCKS CONN

NAVY GRNC

BT

UNCLAS FROM SANEX-1-88-E FOR SANETA OCAMA/OCNUTA SAC/DM4C AMC/MCMT WADC/
WCLP X SUBJECT: REVISED MINIMUM FLOW SETTING JFC-12 FUEL CONTROL,
J-57-43W ENGINES X FOLLOWING PWA MSG IS QUOTED FOR YOUR INFO X
QUOTE. AS THE RESULT OF RECENT INSTANCES OF FLAME OUT OF J57-43W
ENGINES INSTALLED IN KC-135 ACFT ATTRIBUTED TO FROSTING OF THE
METERING VALVE, THIS CONTRACTOR IS PROCESSING A CLASS II ENGINEERING
CHANGE IN DESIGN 92150 TO INCREASE MINIMUM FUEL FLOW APPROXIMATELY
200PPH. IT HAS BEEN DETERMINED THAT THIS INCREASE IN MINIMUM FLOW CAN

~~WKA~~
JAN 27
DISTRIBUTION

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~~RJS~~
~~KUB~~
~~EP~~
~~IS~~
~~RMN~~
~~WEM~~
~~W.B. D. L. G. M. L.~~
~~W.B.~~

~~RLS~~
KOH info.
RLS file 0405.
H.C.
GIC
EMP
ENG.

PE
mtr 3
1305

BE EFFECTED IMMEDIATELY BY ADJUSTING

THE MINIMUM FLOW STOP ON

INSTALLED JFC-11 FUEL CONTROLS USING THE FOLLOWING PROCEDURE.

1. LOCATE THE THROTTLE VALVE SLEEVE JUST AFT OF THE INLET AND

A kump
B high

PAGE TWO RBEGUP 027

BY-PASS PORTS WHEN THE CONTROL IS MOUNTED ON THE ENGINE. 2. LOCATE THE MINIMUM FLOW ADJUSTMENT IN THE CENTER OF THE THROTTLE VALVE SLEEV. THIS ADJUSTMENT IS FITTED WITH AN ALLEN SOCKET AND HAS ELEVEN NOTCHES. NOTE: DO NOT DISTURB THE LOCKING PLATE ON THE OUTER PERIPHERY OF THE THROTTLE VALVE SLEEVE. 3. MARK THE SLOT ON THE THROTTLE VALVE CASTELLATED NOTCH IN WHICH THE LOCK RING IS INSTALLED. REMOVE THE LOCK RING FROM ITS SLOT AND THUS FROM ITS NOTHC IN THE MINIMUM FLOW STOP. 4. USING A SUITABLE ALLEN WRENCH, ROTATE THE MINIMUM FLOW STOP COUNTERCLOCKWISE UNTIL THE NEXT NOTCH ON THE MINIMUM FLOW STOP LINES UP WITH THE MARKEDSLOT OF THE CASTELLATED NOTCH ON THE THROTTLE VALVE SLEEVE.

5. REPLACE THE LOCKING RING IN THE SAME MARKED SLOT FROM WHICH IT WAS REMOVED. THIS ADJUSTMENT ROTATES THE MINIMUM FLOW STOP APPROXIMATELY 33 DEGREES COUNTERCLOCKWISE AND INCREASES MINIMUM FUEL FLOW 200 PLUS OR MINUS 15 PPH. 6. AFTER INCORPORATING THE FOREGOING ADJUSTMENT,

PAINT A 1/4 INCH WHITE DOT~~E~~ ON THE FACE OF THE THROTTLE VALVE SLEEVE

AND REIDENTIFY THE P OL-524950 ^{for -43WB engines} CONTROL AS L-4 AND THE P/L 501157 ^{for -43W-WA engines}

CONTROL AS L-17. UNQUOTE. OCAMA TCTO 1C-135(KA)765 COVVERS THIS

CHANGE PER AGREEMENTS AT WADC PROPULSION LAB MEETING 15- 16 JAN 59

PWA EC 92150 IS ASSIGNED THIS CHANGE X OUR REP AND PWA DID NOT AGREE

IT WAS NECESSARY TO RUN ENGINE OR USE ACFT FLOW METER TO DETERMIN IF

200 LB INCREASE WAS BEING OBTAINED BY ADJUSTMENT X FLOW METER

~~INCREMENT BREAKDOWN NOT ADEQUATE FOR REFINED READING. REQUEST~~
RUNNING OF ENGINE/USE OF FLOW METERS BE DISCONTINUED IN CONNECTION
WITH THIS ADJUSTMENT IF IN EFFECT X ACCURACY OF THIS ADJUSTMENT
HAS BEEN ASSURED AT PLUS OR MINUS 15LBS ON CALIBRATED TEST BENCH
FLOW METER X BLUE DOT IS ACCEPTABLE IN LIEU OF PWA WHITE DOT X
PRCD CONTROLS WILL BE IDENTIFIED BY P/T CHANGE X

PAGE THREE RBEGUP 027

UNDER NO CIRCUMSTANCES WILL ADJUSTMENT EXCEED ONE REPEAT ONE NOTCH
ON MINIMUM FLOW STOP

BT

22/1817Z JAN RBEGUP

FIELD SERVICE REPORT

BOEING AIRPLANE COMPANY

TO: ENGINEERING SERVICE DEPARTMENT

SEATTLE ☒WICHITA ☐

SUBJECT: Difficulties with Throttle Control

CLASSIFIED ☐UNCLASSIFIED ☒

ROUTING:

ORIGINAL
DES
ERC
WHD
INFO
OFFICE BASE FILE
CC
WHD
Ed
TE KELLER
SERVICE DEPT SUBJECT FILE

This report will describe an incident involving the "freezing" of the # 4 engine throttle of airplane 3132 on May 14, 1959.

Following a wet take-off, ambient temperature +19°C, the airplane was climbed to 32000 feet altitude, ambient temperature +45°C, and remained at this altitude for the next two hours. At about 1:45 hours at 32000 feet altitude the throttles were moved to adjust engine speed without observing anything abnormal. When trying to adjust the engines 15 minutes later it was observed that the throttle of the # 4 engine cannot be retarded below 85% rpm. The airplane was returned to Castle and prior to let-down the # 4 engine was shut-down by pulling the fire switch. After landing the throttle could be moved without difficulties. The flight was aborted, flight time 4:20 hours. Flight time of the airplane: 829:30 hours.

During ground check on May 15, 1959 no discrepancy could be detected even after the water lines to the right hand engines was pressurized. In order to clear the airplane the AF personnel replaced the Bendix fuel control of the # 4 engine, despite advise to the contrary.

Paul Ribanyi

Paul Ribanyi

FILE 0501
KC-135

NAME	Paul Ribanyi	REPORT NO.	CAFB-OES-727	DATE	May 15, 1959
LOCATION	Castle AFB	LOCATION	Merced, California	MODEL	KC-135
SUBJECT	Difficulties with Throttle Control			ENCLOSURES	None
REFERENCES	None				

FSR FSR FSR FSR FSR FSR FSR

U.S. AIR FORCE
BOEING SEATTLE WASH

FEB 12 1 05 PM '60

CONTRACT ADM

FEB 2 8 04 PM '60

File
BKC
EMP
ENG
DWO

22

DISTRIBUTION

EP
KMB
RJS
WEM

W.B. Doherty

WKB 015WUB 032WMB 098

RR RUWKEF

DE RJWXR 106X

R 022045 Z ZEX

FM CINCSAC

TO RUWKB/AF PLANT REP BOEING APCO SEATTLE WASH

RJWFNH/SAAMA

RJW FNK/OCAMA

RBEGUP/AFESO PRATT AND WHITNEY BAR EAST HARTFORD CONN

INFO RJEBKF/2AF

RJEXDH B/8AF

RJWBKN/15AF

RJWXB RF/4321STRATWG

RJWFGM/ 41305TRATWG

AFGRNC

BT

UNCLAS DM4A 1 0135.

J. T. ... E. Co.
 AT ...
 TE
 10 Feb
 Sus. Use
 Date

RECEIVED
TRANSPORT DIV.
ENGINEERING DEPT
FEB 15 9 12 AM '60

ACTION AFPR BOEING - SEATTLE; SANET, SAAMA; SANEK, AFESO; CNSP,

OCAMA INFO ALFA; 4321 STRAT WG; 4130 STRAT WING; 7 BOMB WG;

LMSJ, AMC; B52/KC-135 OES; AFCDI-2, OTIG; 4039 STRAT W

524 AJAFSEL CONTROLS KC-135 AIRCRAFT. AFPR BOEING-

SEATTLE UNSATISFACTORY REPORT REPLY DATED 19 JAN 60 TO 2AF

CONCERNING UR'S 4321 SW59-1, 4321 SW59-2, 4130 SW59-360, 7 BW--

59-292 ON AJA 4 FUEL CONTROLS. THE REFERENCED REPLY STATED THAT

THE UR'S WERE MADE NON-PROJECT BECAUSE THE ELAPSED TIME BETWEEN

THE TIME UR WAS WRITTEN AND RECEIVED AT THE PRIME AMA WAS TOO

112

PAGE TWO RJWXBR 106X

LENGTHY AND THE UR'S CONTAINED INSUFFICIENT DETAILS. THIS HEADQUARTERS DOES NOT CONCUR WITH THIS ACTION. THE AVERAGE TIME ON THESE UR'S FROM THE TIME THAT THE UR WAS SUBMITTED BY THE ACTIVITY UNTIL THE TIME THAT THE UR WAS FORWARDED TO THE AFPR FROM 2AF WAS 13 DAYS. THE SHORTEST TIME WAS 5 DAYS AND THE LONGEST TIME WAS 20 DAYS. THESE TIMES ARE CONSIDERED REASONABLE UNDER THE PRESENT UR SYSTEM. HOWEVER, THE PRIMARY REASON THAT THE HEADQUARTERS DOES NOT CONCUR WITH MAKING THESE UR'S NON-PROJECT IS THAT UNITS CONTINUE TO EXPERIENCE DIFFICULTY WITH FUEL CONTROL MALFUNCTIONS. IN ADDITION, THE AJA4 FUEL CONTROL IS A CRITICAL SUPPLY ITEM. THE DIFFICULTIES, AS STATED IN THE REFERENCED UR'S ARE STILL PREVALENT THROUGHOUT THE COMMAND. FOR EXAMPLE, 8AF NOW HAS 12 FUEL CONTROLS WHICH CANNOT BE WET-TRIMMED PROPERLY AFTER COMPLIANCE WITH T.O. 1C-135(K)A-836. AN INVESTIGATION OF TWO CONTROLS FROM RAMEY AFB SHOWS THAT THE BASIC REASON THAT THE CONTROLS COULD NOT BE WET TRIMMED WAS FAULTY FUEL CONTROLS AND NOT COMPLIANCE WITH DRY-UP TRIM TECHNIQUE. THE DRY-UP TRIM REQUIREMENT ONLY REVEALED THAT THE CONTROLS WERE MALFUNCTIONING. IN VIEW OF THE ABOVE FACTS WE REQUEST THAT YOU MAKE THE ABOVE UR'S REPEATS ON AN ALREADY

PAGE THREE RJWZBR 106X

ESTABLISHED PROJECT OR THAT A PROJECT BE ESTABLISHED TO DETERMINE AJA4 FUEL CONTROL DIFFICULTIES. THE REFERENCED LETTER ALSO STATED THAT ROUTINE UR'S SHOULD BE REPORTED BY TWX. SUCH ACTION IS INCONSISTENT WITH T.O. 00-35D-54. REQUEST THAT SAAMA TAKE APPROPRIATE ACTION TO AMMEND T.O. 00-35D-54 IF DEEMED NECESSARY. IF SAAMA FINDS THE REACTION TIME UNDER THE PRESENT UR SYSTEM TOO LONG TO GAIN ACCESS TO UR EXHIBITS THEN REQUEST SAAMA SEND A FUEL CONTROL TECHNICIAN TO ONE OF THE FOLLOWING BASES TO INVESTIGATE CURRENT FUEL CONTROL PROBLEMS: (1) GRIFFIS AFB N.Y.; (2) LORING AFB ME.; (3) WESTOVER AFB MASS.

BT

02/2116Z DE RJWXBR

NNNN

FEB 11 3 10 PM '22

DISPATCHED
CIR 24 10 42H

[illegible]

☒ ART ☐ WRITTEN

A.I.T. ORDER NUMBER	SECTION 76 ENGINE CONTROLS	PAA-121 D6-1046	AA-123 D6-2757	CAL-124 D6-2756	TWA-131 D6-2758	JEA-138 D6-2763	GUB-139	BRP-227 D6-2759	PAA-321	AF-328 D6-2761	SAB-329 D6-2760	TWA-331	LUFT-430 D6-2764	BOAC-436	ALL-437 D6-2762
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76-1	Engine Throttle Controls	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
76-2	Engine Tachometer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 -	Engine Control Cables	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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SECTION 72

ENGINE



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SECTION 57

WINGS



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SECTION 33
LIGHTS

ART 6

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ART ORDER NUMBER	SECTION 32 Cont. LANDING GEAR														
		PAA-121 D6-1048	AA-123 D6-2757	CAL-124 D6-2756	TMA-131 D6-2758	QEA-138 D6-2763	CUB-139	BNP-227 D6-2759	PAA-321	AP-328 D6-2761	SAB-329 D6-2760	TMA-331	LUFT-430 D6-2764	BOAC-436	ATI-437 D6-2762
32-23	Nose Gear Lock	PU <input checked="" type="checkbox"/> A	121 A	121 A	121 A	121 A	121 A	121 A							
32-24	Nose Wheel Well Door Actuator and Linkage Installation	PU <input checked="" type="checkbox"/> X	121	121	121	121	121	121							
32-25	Landing Gear Control System	PU <input checked="" type="checkbox"/> B													
32-26	Landing Gear Control Handle Lock Circuit	PU <input checked="" type="checkbox"/> X	121	121	121	121	121	121							
32-27	Landing Gear Position Indica- ting Circuit	PU <input checked="" type="checkbox"/> A	121 A	121 A	121 A	121 A	121 A	121 A							
32-28	Main Gear Emergency Extension System	PU <input checked="" type="checkbox"/> X	121	121	121	121	121	121							
32-29	Nose Gear Emergency Extension System	PU <input checked="" type="checkbox"/> X	121	121	121	121	121	121	121	121	121	121	121	121	121
32-30	Nose Wheel Steering Hydraulic System	PU <input checked="" type="checkbox"/> A													
32-31	Nose Wheel Steering Control System	PU <input checked="" type="checkbox"/> X													
32-32	Steering Metering Valve	PU <input checked="" type="checkbox"/> X	121	121	121	121	121	121	121	121	121	121	121	121	121
32-33	Nose Wheel Steering Follow-up Details	PU <input checked="" type="checkbox"/> X	121	121	121	121	121	121							

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SECTION 31 Cont.
INSTRUMENTS

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CABLE TRAVEL			
CABLE	NO LOAD TOTAL	NO LOAD FWD THRUST	NO LOAD REV THRUST
THRUST LEVER	7.39	4.22	3.17
START	2.27	—	—

RIGGING LOAD = 40 ± 5 LB. AT 70°F

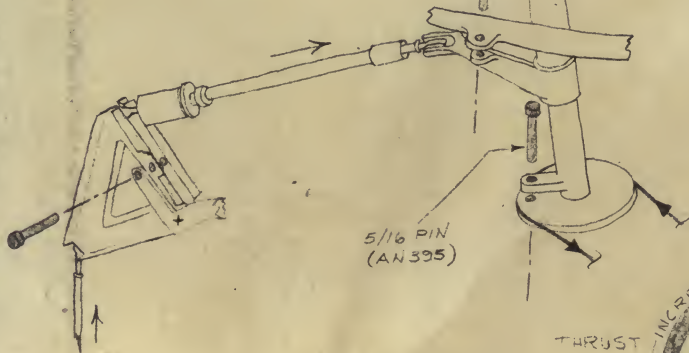
RIGGING POSITION

THRUST LEVER IDLE

START LEVER CUTOFF

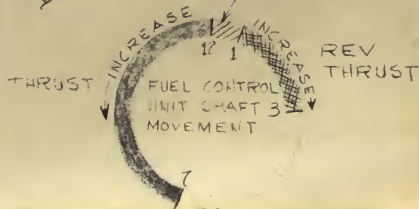
FWD THRUST

START ENGINE

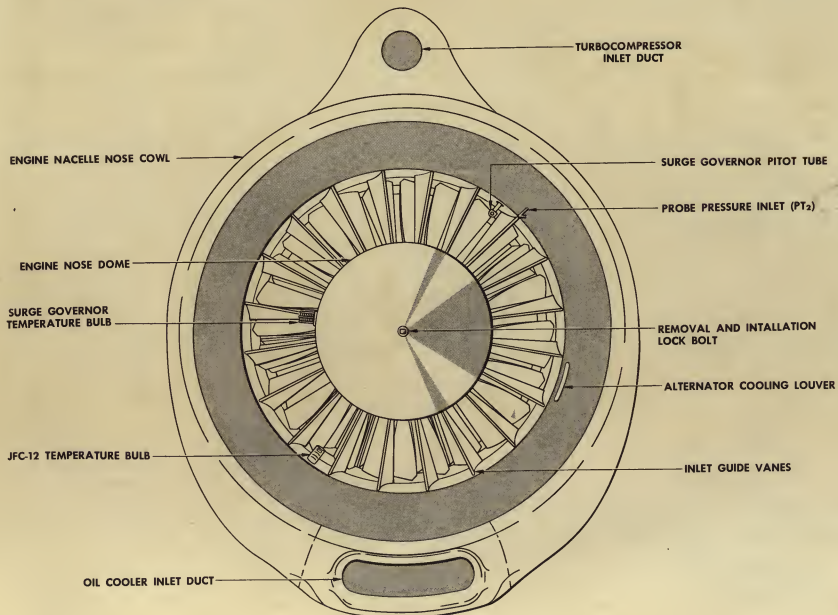


5/16 PIN
(AN395)

IDLE FLAT



REF: DWG 50-8709

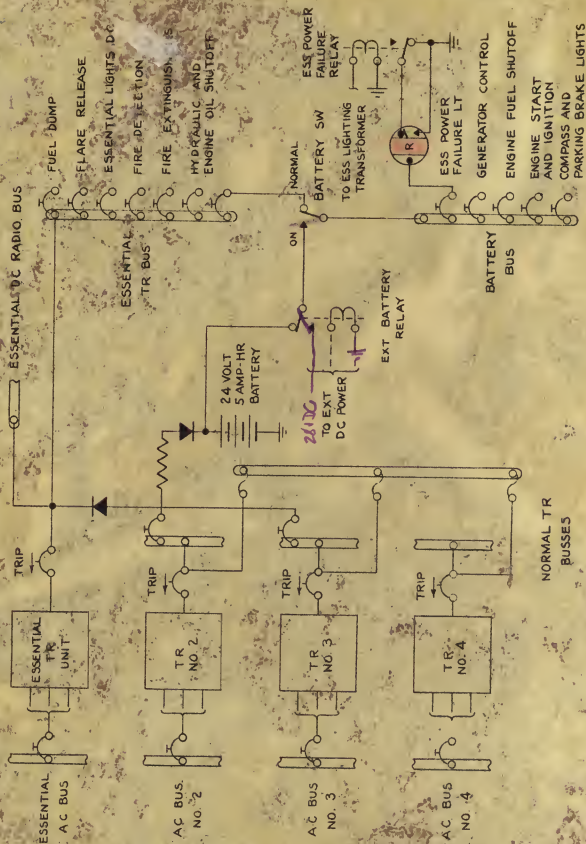


ENGINE—FRONT VIEW

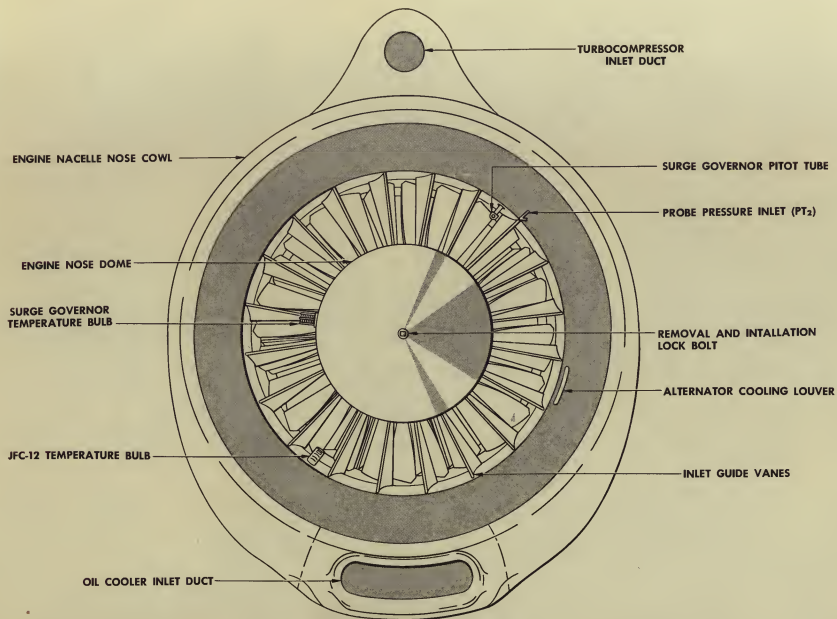
CALC	BEG	7/18/57	REVISED	DATE
CHECK				
APR				
APR				
DC POWER SYSTEM				
BOEING AIRPLANE COMPANY SEATTLE 24, WASHINGTON				
				PAGE

BAC 1017-B4

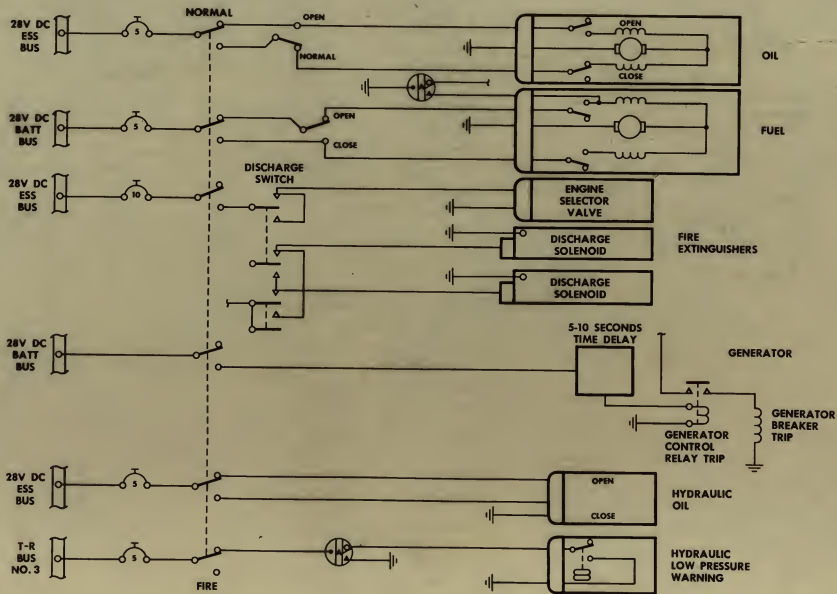
3-7000



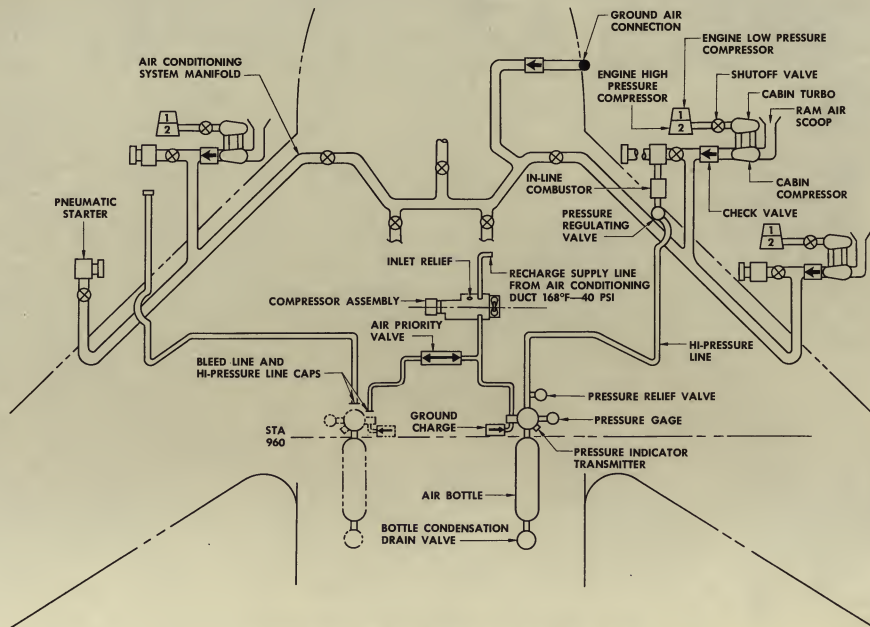
121-24-8 Rev C?



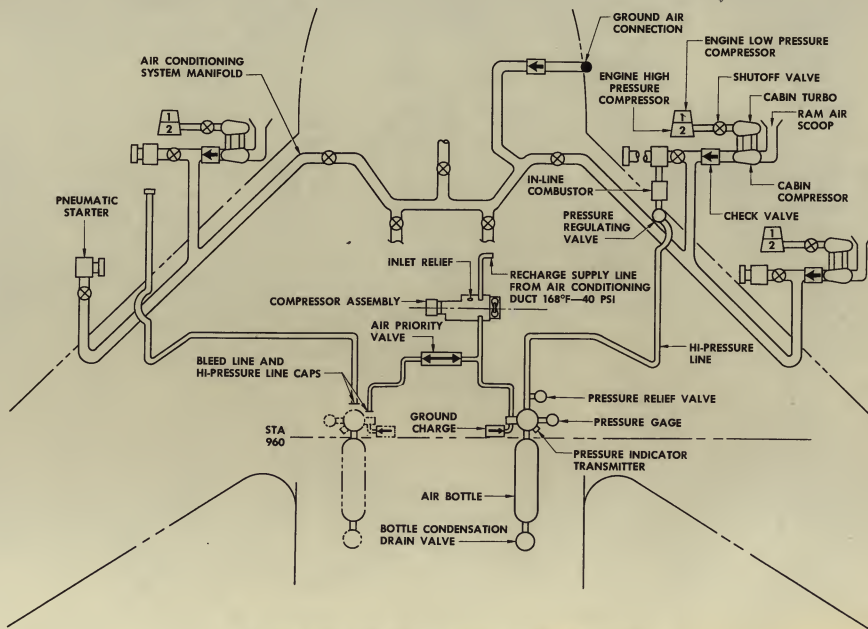
ENGINE — FRONT VIEW



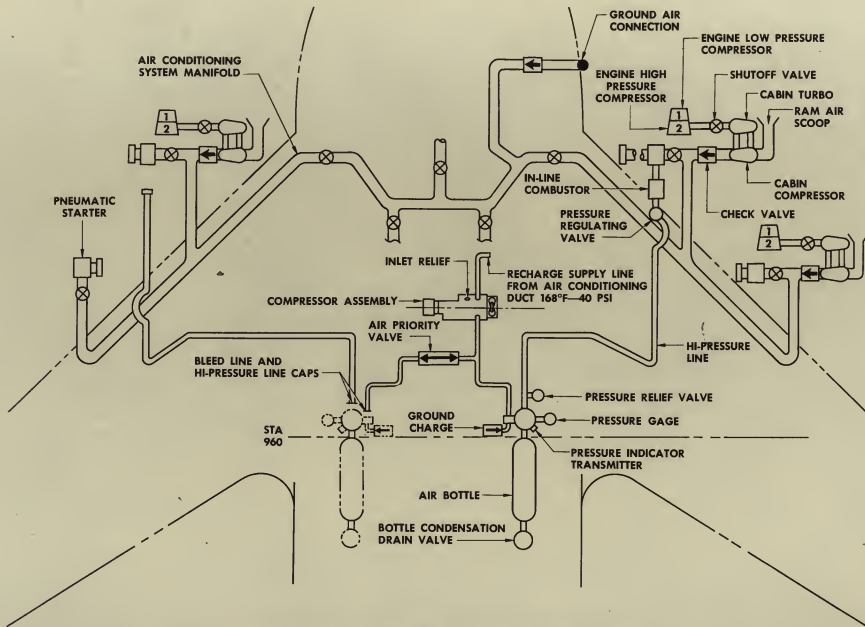
ENGINE FIRE SWITCH SCHEMATIC



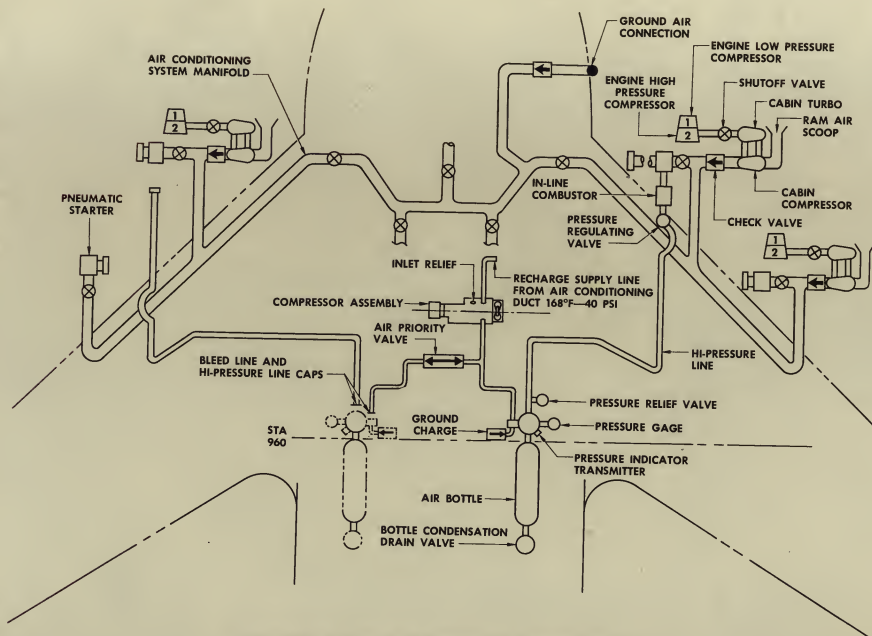
ENGINE FUEL-AIR AND PNEUMATIC STARTER SYSTEM



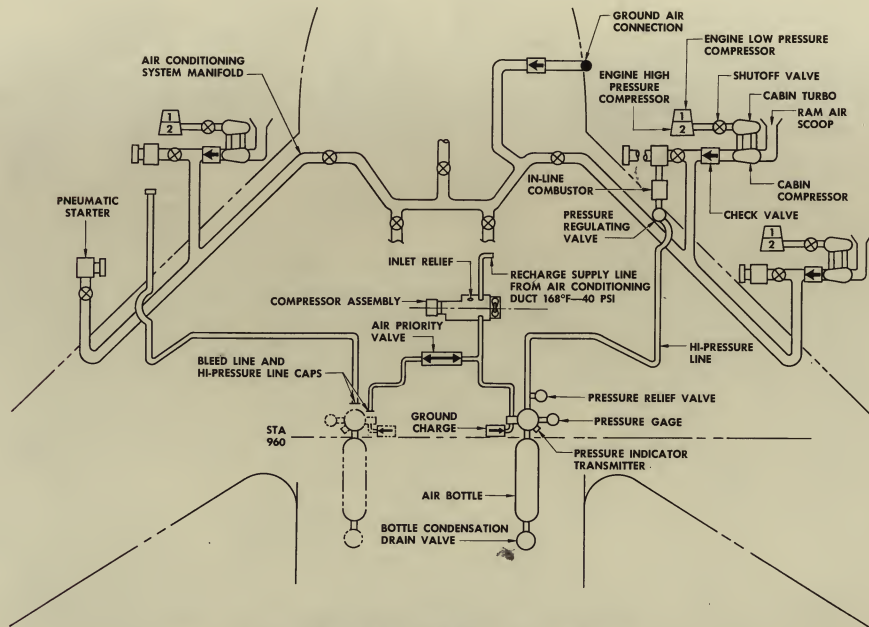
ENGINE FUEL-AIR AND PNEUMATIC STARTER SYSTEM



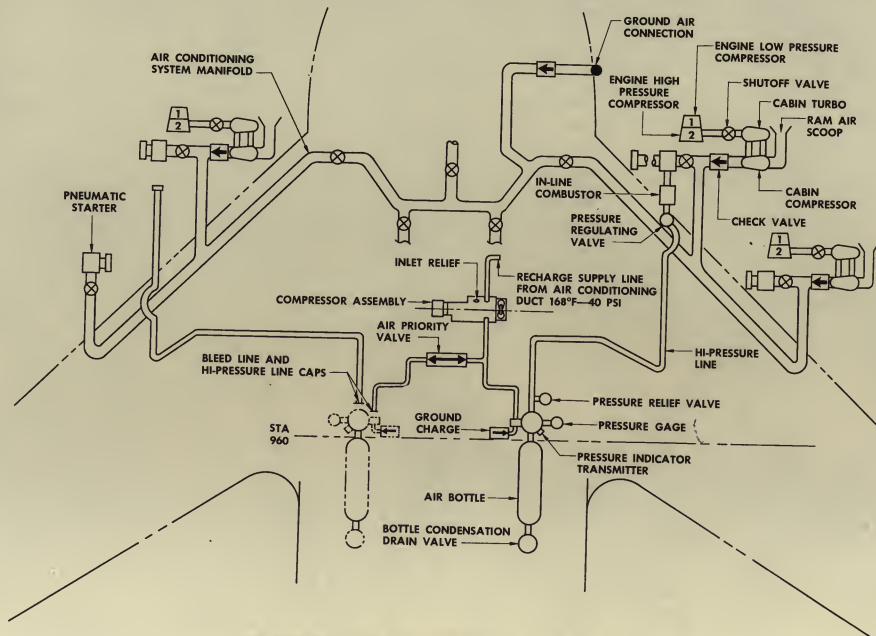
ENGINE FUEL-AIR AND PNEUMATIC STARTER SYSTEM



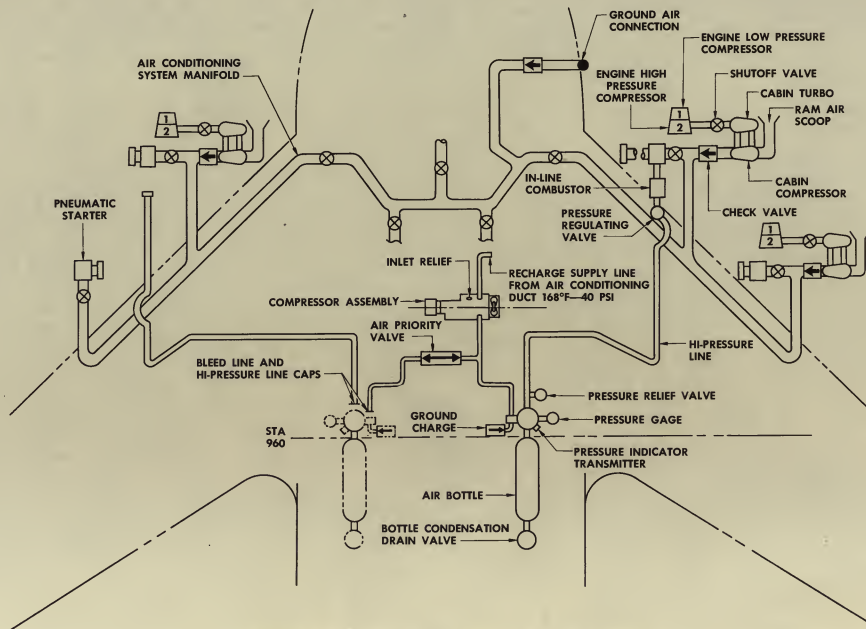
ENGINE FUEL-AIR AND PNEUMATIC STARTER SYSTEM



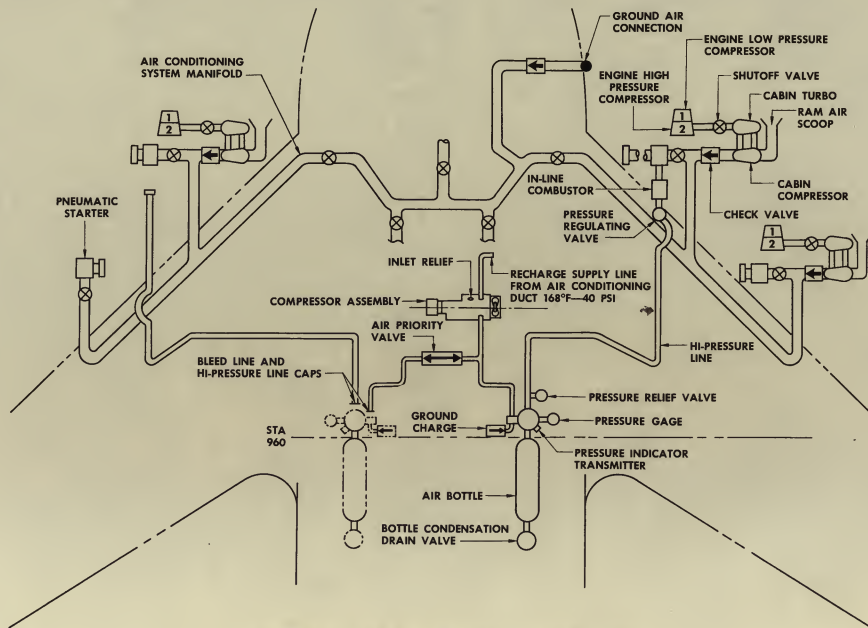
ENGINE FUEL-AIR AND PNEUMATIC STARTER SYSTEM



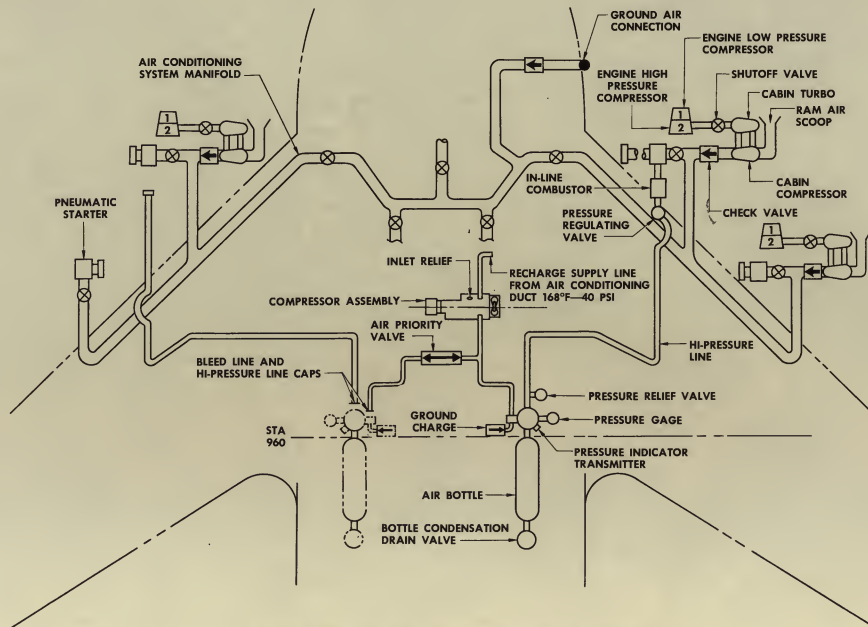
ENGINE FUEL-AIR AND PNEUMATIC STARTER SYSTEM



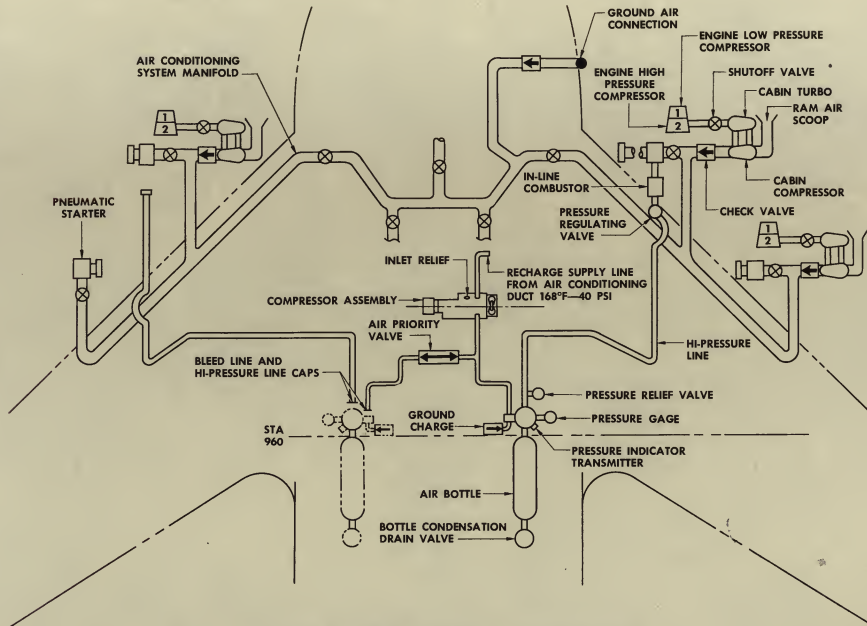
ENGINE FUEL-AIR AND PNEUMATIC STARTER SYSTEM



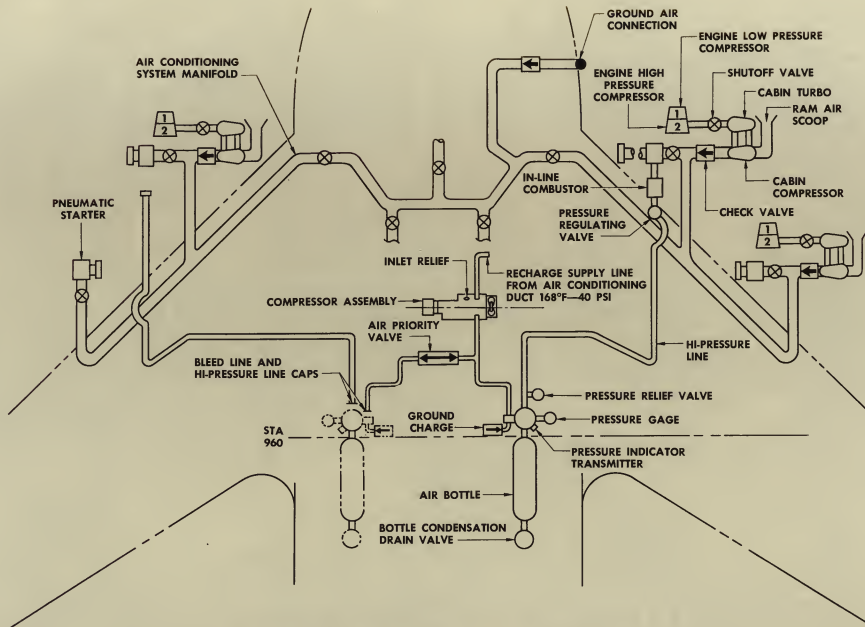
ENGINE FUEL-AIR AND PNEUMATIC STARTER SYSTEM



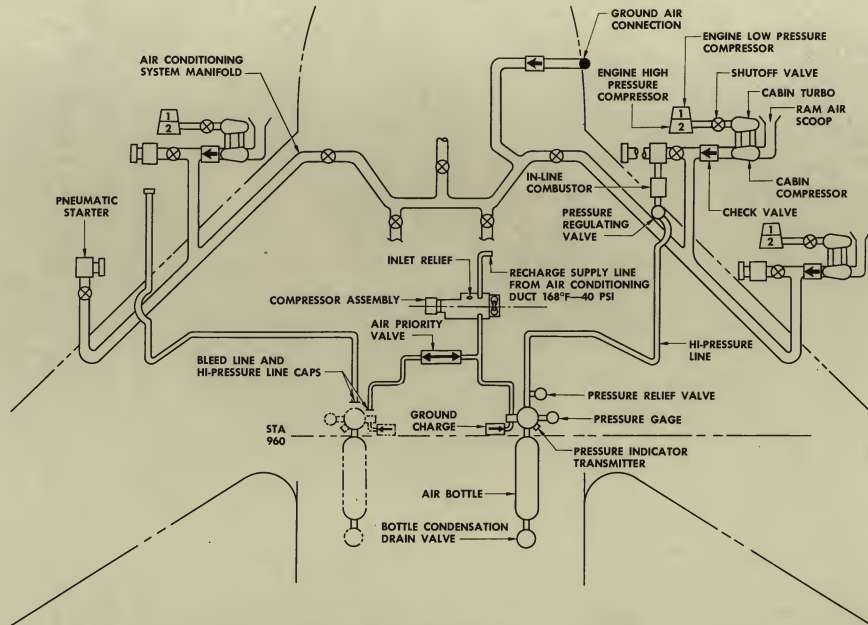
ENGINE FUEL-AIR AND PNEUMATIC STARTER SYSTEM



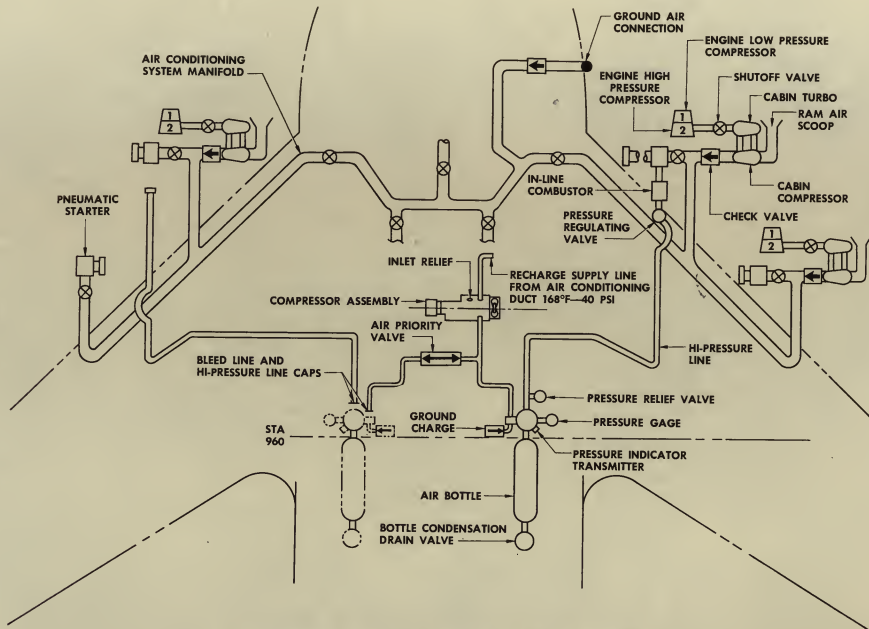
ENGINE FUEL-AIR AND PNEUMATIC STARTER SYSTEM



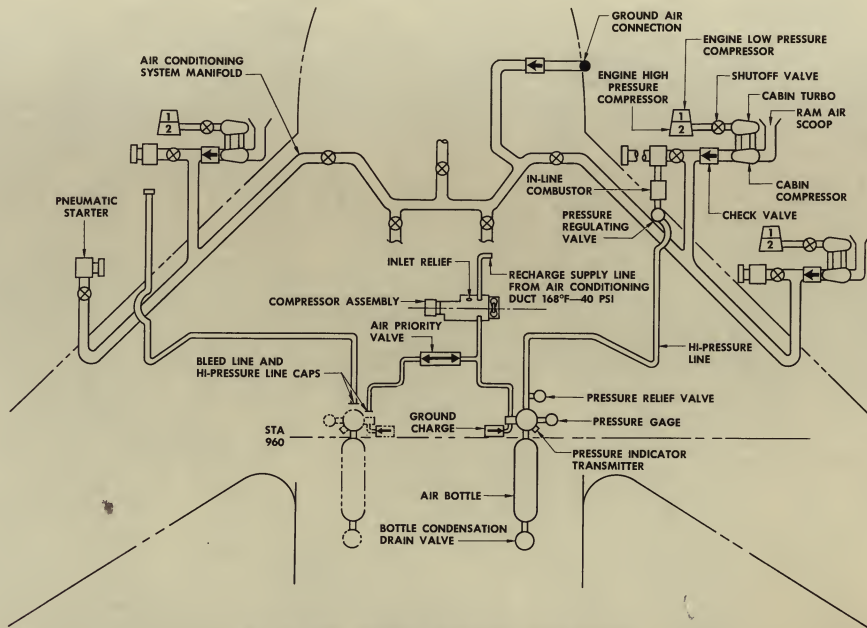
ENGINE FUEL-AIR AND PNEUMATIC STARTER SYSTEM



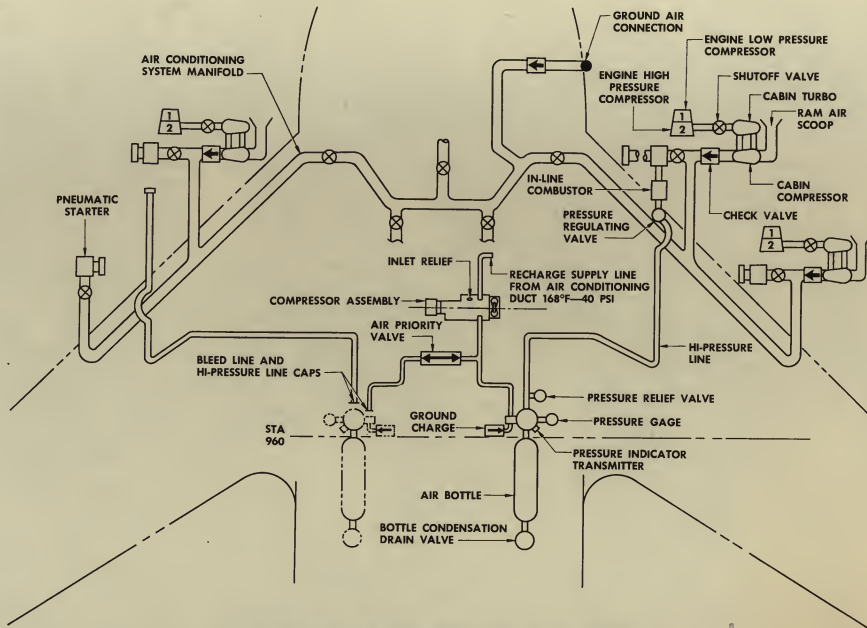
ENGINE FUEL-AIR AND PNEUMATIC STARTER SYSTEM



ENGINE FUEL-AIR AND PNEUMATIC STARTER SYSTEM

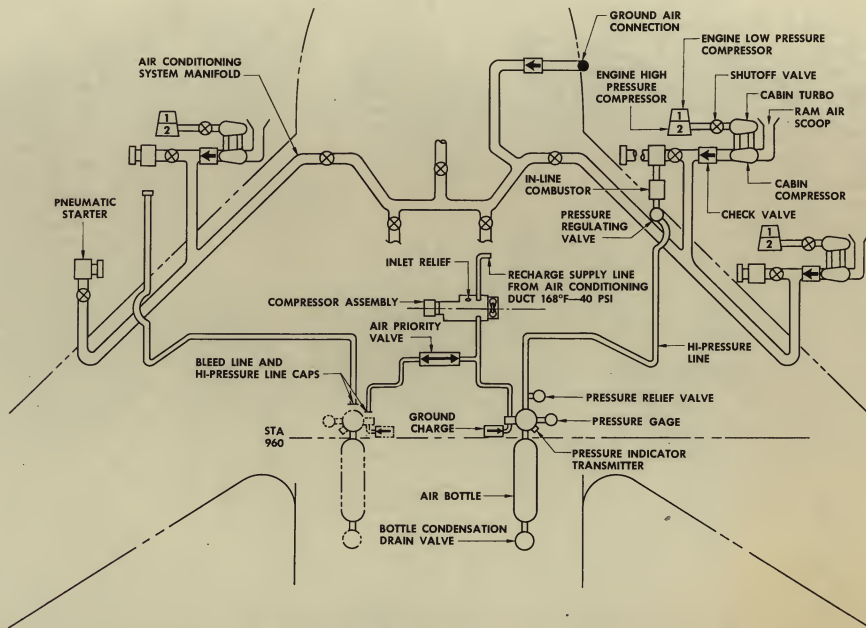


ENGINE FUEL-AIR AND PNEUMATIC STARTER SYSTEM

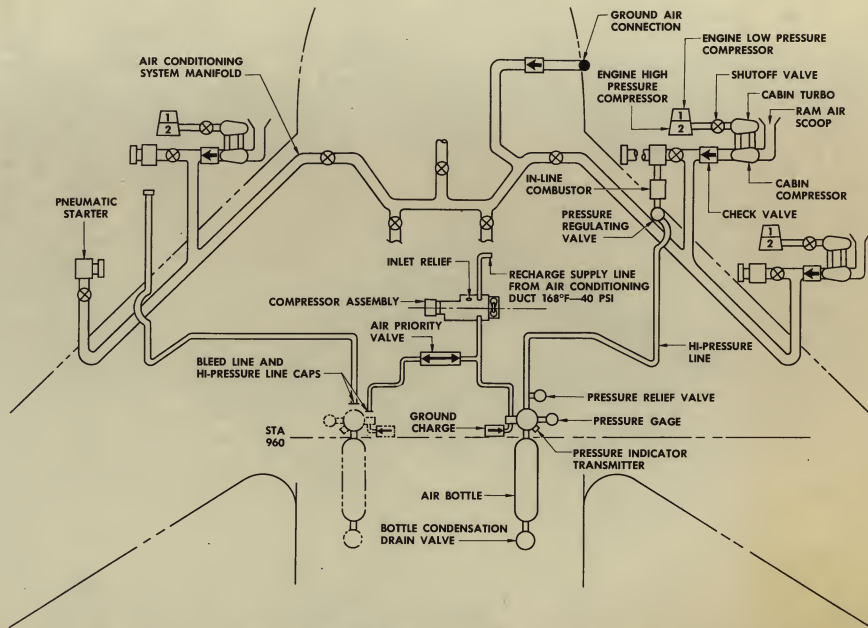


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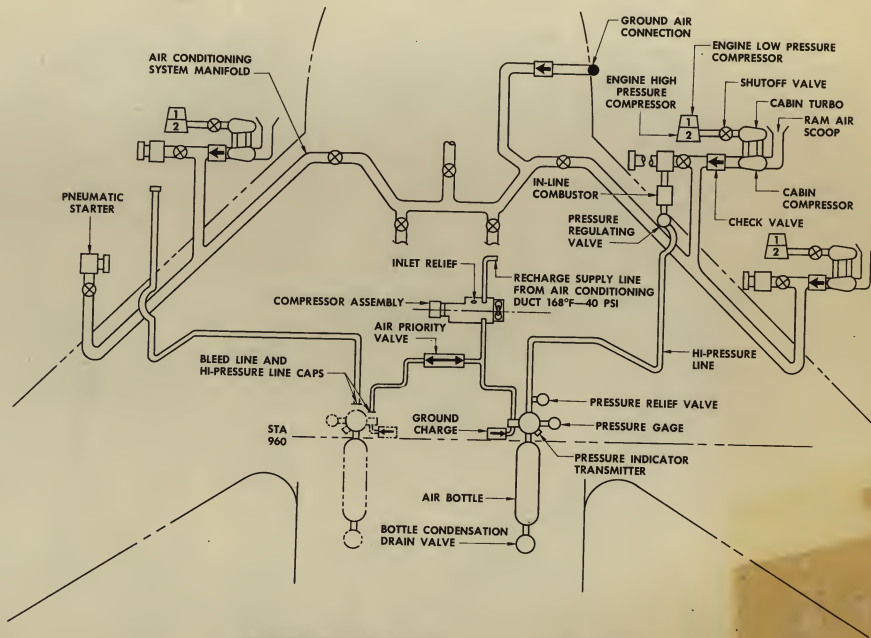
121-80-1 B



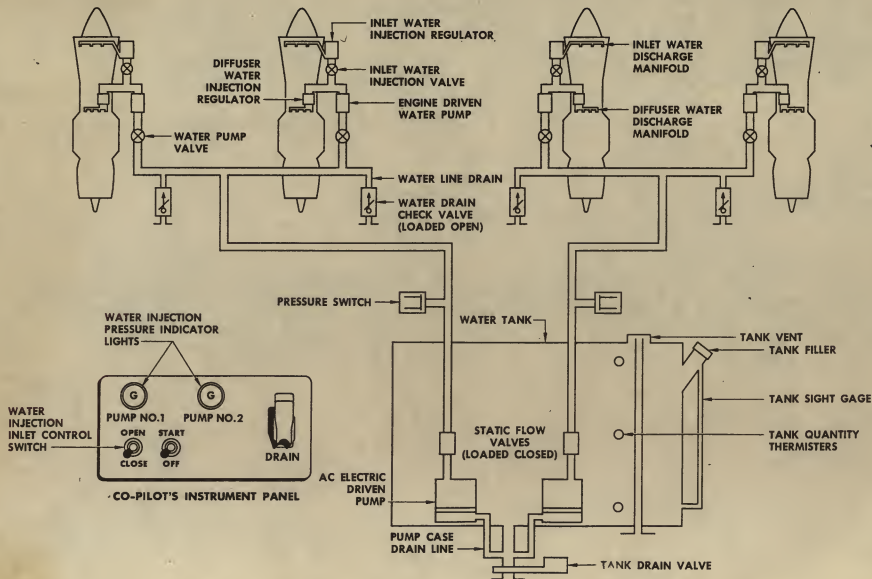
ENGINE FUEL-AIR AND PNEUMATIC STARTER SYSTEM



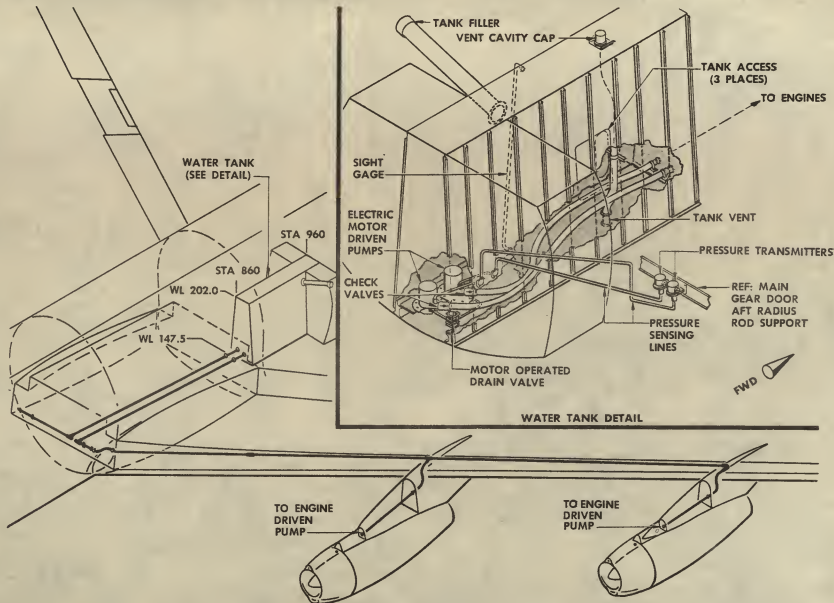
ENGINE FUEL-AIR AND PNEUMATIC STARTER SYSTEM



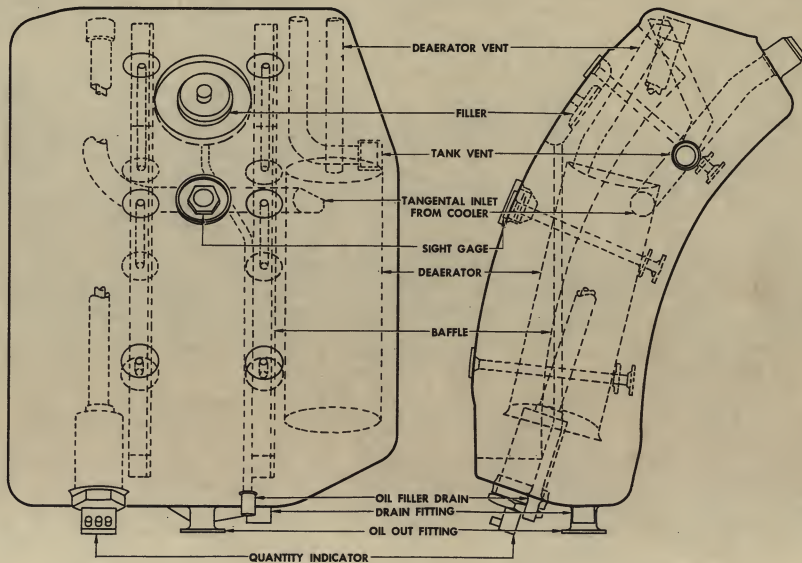
ENGINE FUEL-AIR AND PNEUMATIC STARTER SYSTEM



WATER INJECTION CONTROL SYSTEM SCHEMATIC

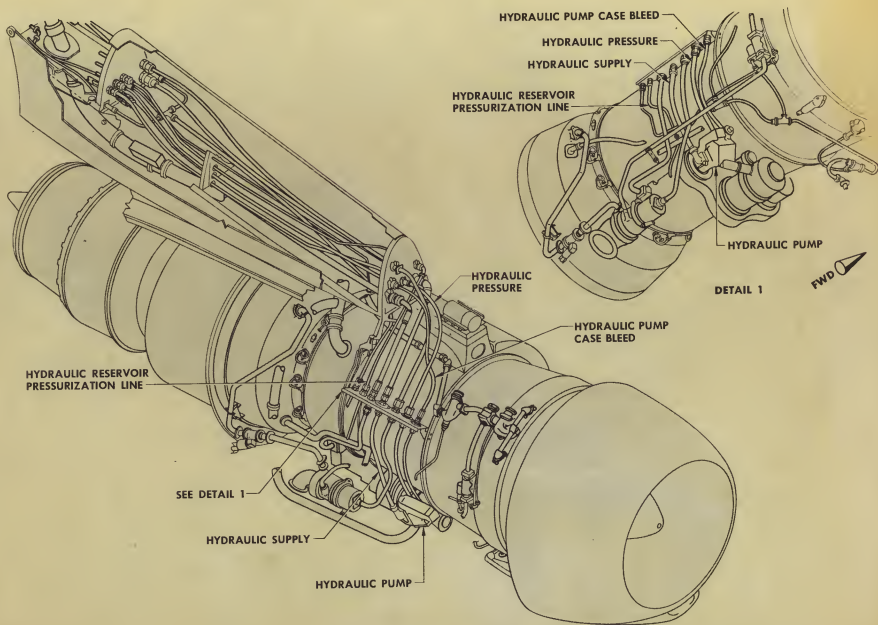


JT3C-6 ENGINE WATER INJECTION SYSTEM

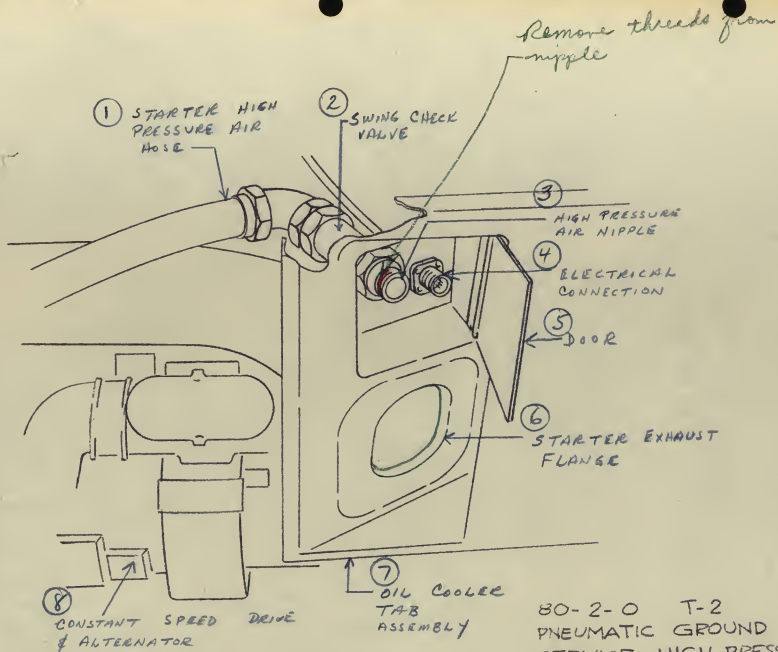


ENGINE OIL TANK

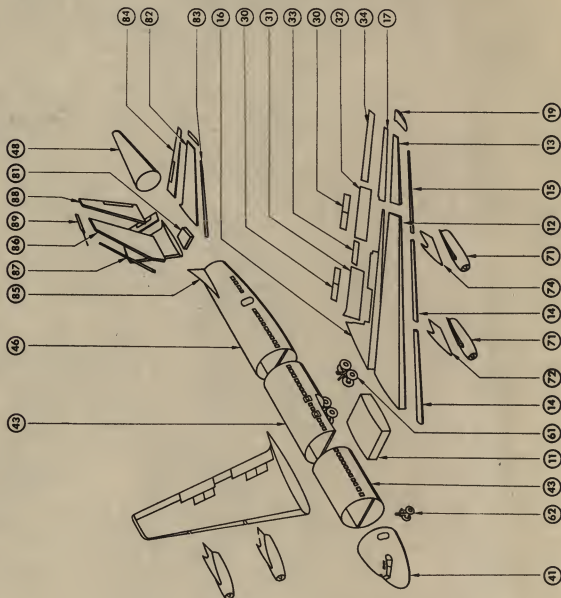
28-1



NACELLE HYDRAULIC INSTALLATION



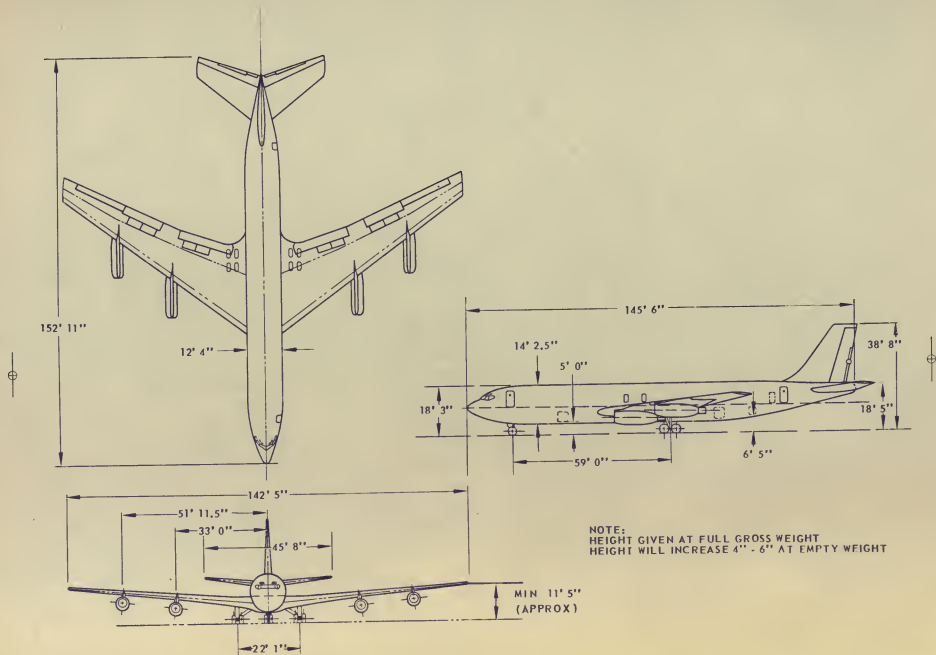
80-2-0 T-2
PNEUMATIC GROUND
SERVICE HIGH PRESSURE
AIR & ELECTRICAL CONN.
1-28-58 G. LEAKE



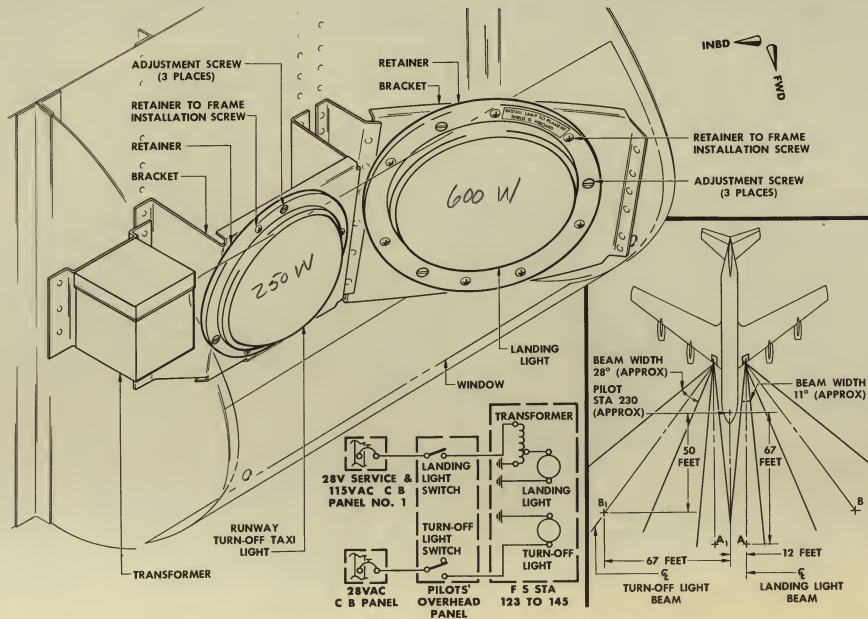
- | | |
|---------------------------------------|--------------------|
| SECTION | STRUCTURE ASSEMBLY |
| 11—STUB | |
| 12—INBOARD WING | |
| 13—OUTBOARD WING | |
| 14—INBOARD WING—LEADING EDGE | |
| 15—OUTBOARD WING—LEADING EDGE | |
| 16—INBOARD WING—TRAILING EDGE | |
| 17—OUTBOARD WING—TRAILING EDGE | |
| 18—WING TIP | |
| 30—SPOILERS | |
| 31—INBOARD FLAPS | |
| 32—OUTBOARD FLAPS | |
| 33—INBOARD AILERON | |
| 34—OUTBOARD AILERON | |
| 41—FIRST BODY SECTION | |
| 43—FWD—SECOND BODY SECTION | |
| 44—AFT—THIRD BODY SECTION | |
| 46—FOURTH BODY SECTION | |
| 48—FIFTH BODY SECTION | |
| 61—MAIN LANDING GEAR | |
| 92—NOSE LANDING GEAR | |
| 71—INBOARD STRUT | |
| 74—OUTBOARD STRUT | |
| 81—TORQUE BOX | |
| 82—HORIZONTAL STABILIZER | |
| 83—HORIZONTAL STABILIZER—LEADING EDGE | |
| 84—ELEVATORS | |
| 85—DORSAL FIN | |
| 86—VERTICAL FIN | |
| 87—VERTICAL FIN—LEADING EDGE | |
| 88—RUDDER | |
| 89—VERTICAL FIN—TIP | |

Sectional Breakdown

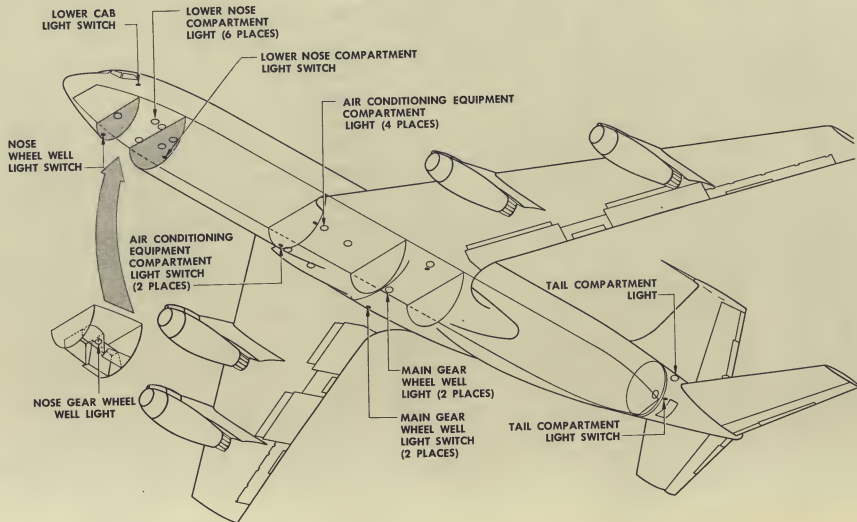
Figure 1



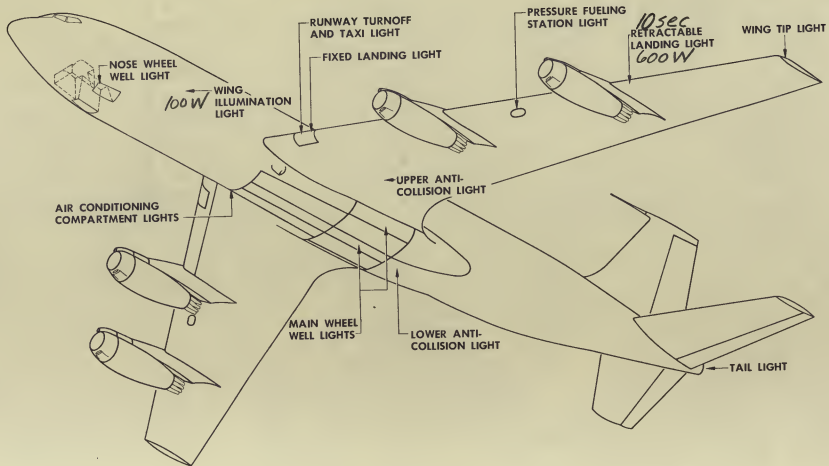
PRINCIPAL DIMENSIONS



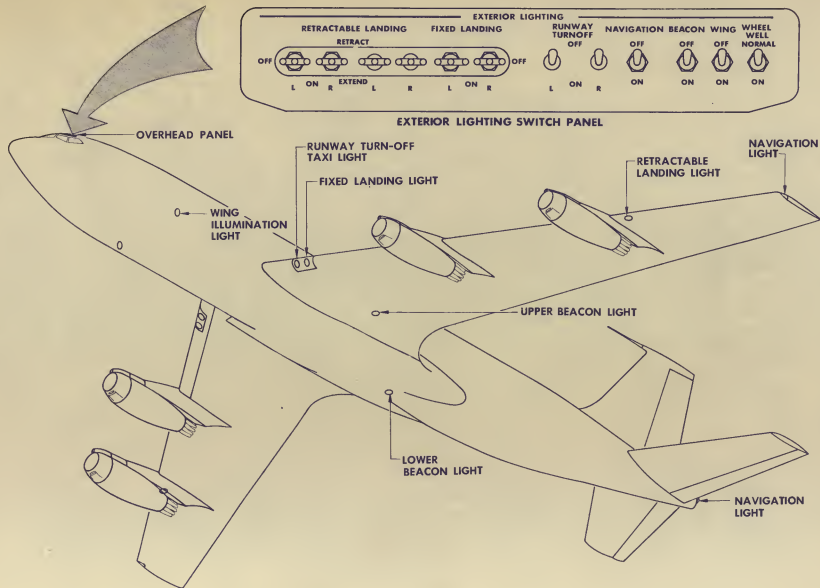
FIXED LANDING AND RUNWAY TURN-OFF TAXI LIGHTS



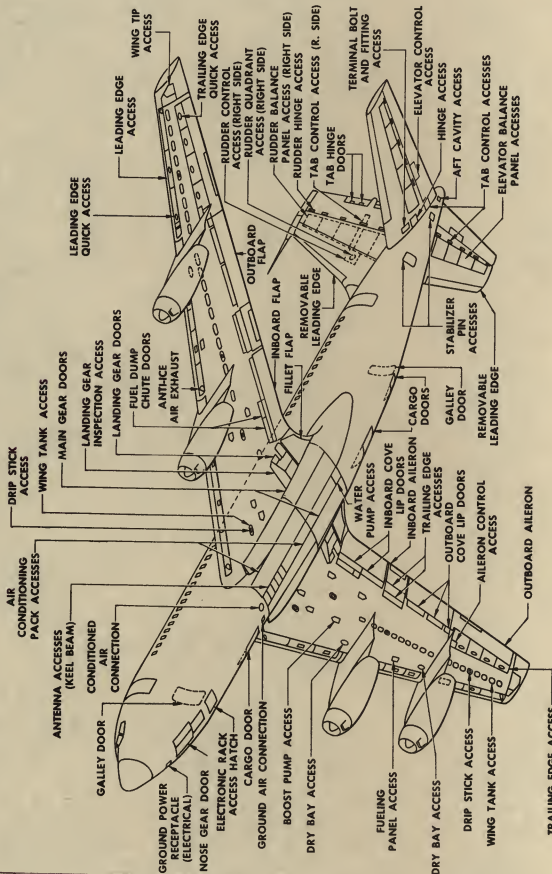
MISCELLANEOUS INTERNAL LIGHTING



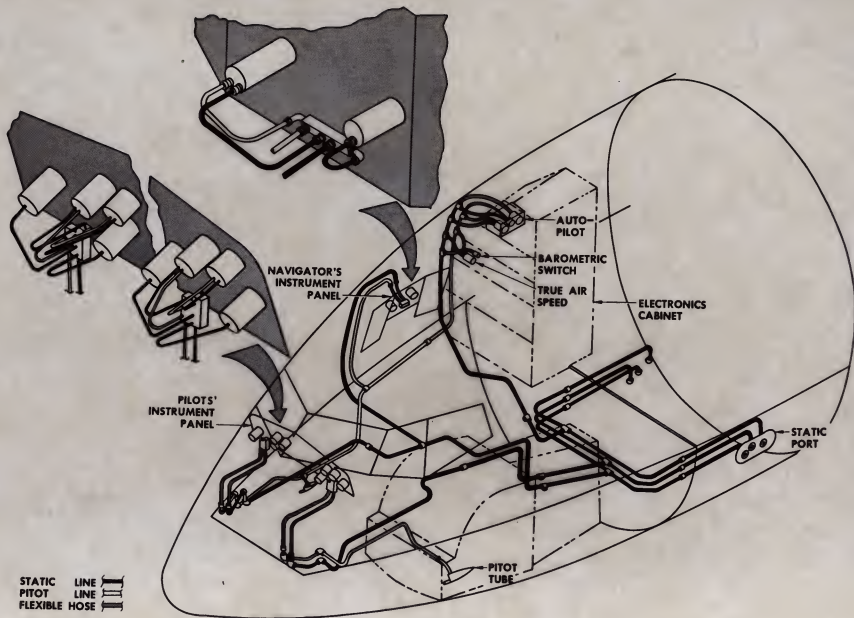
EXTERIOR LIGHTS LOCATION



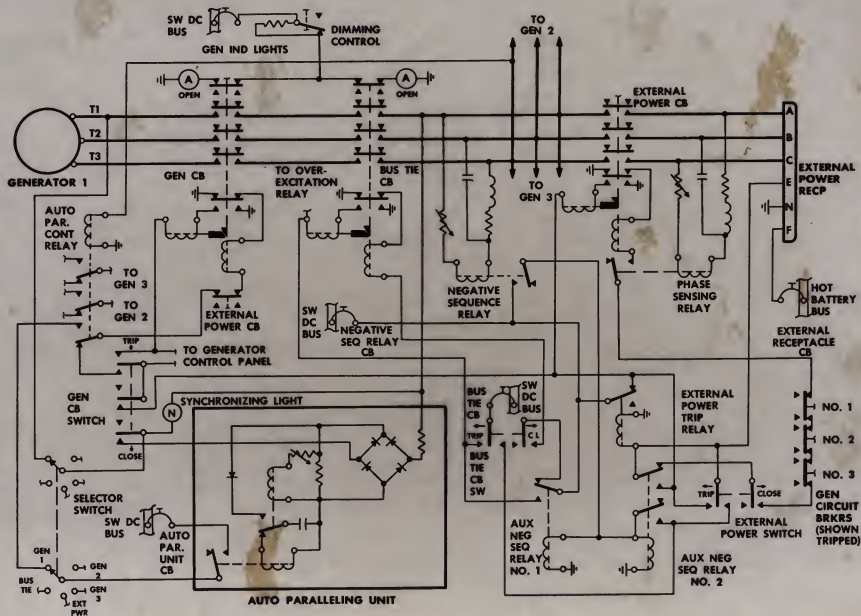
EXTERIOR LIGHTING



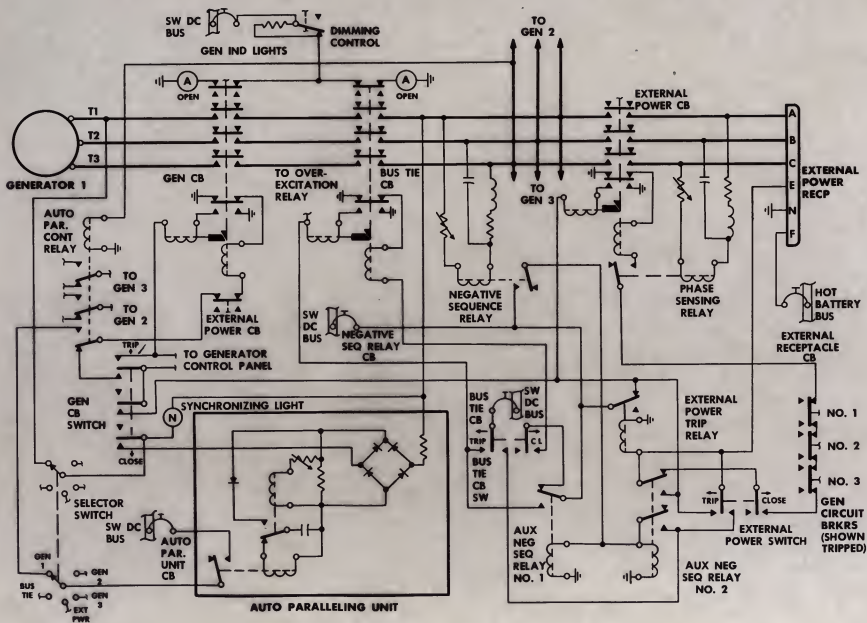
Access Doors and Inspection Openings - Bottom View
Figure 201



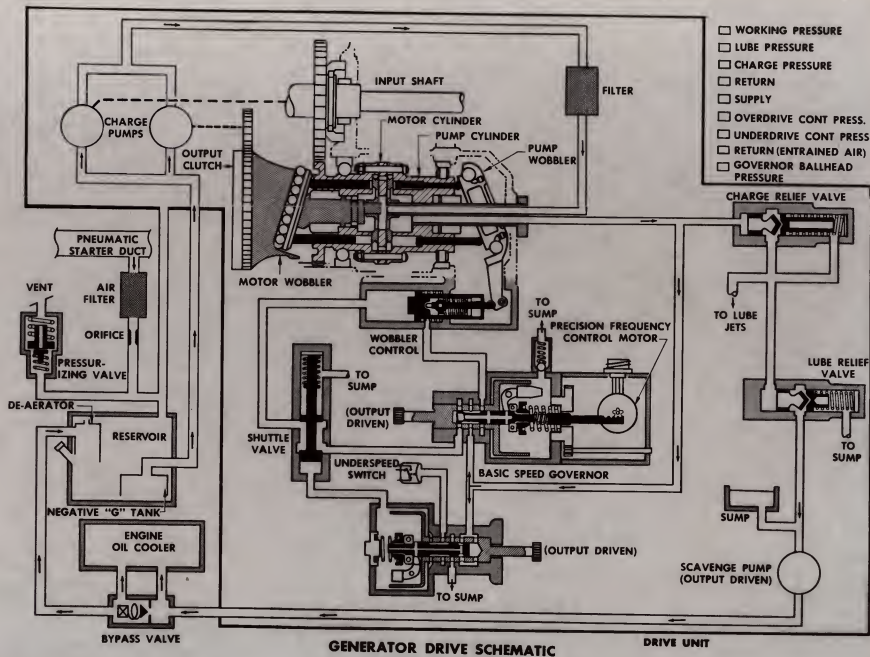
PITOT STATIC SYSTEM LOCATION

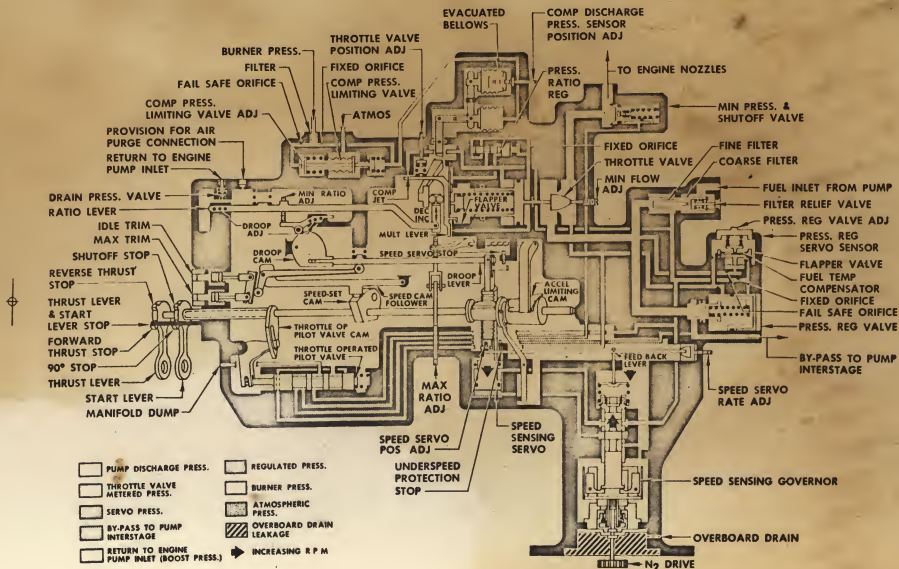


GENERATOR PARALLELING CIRCUIT



GENERATOR PARALLELING CIRCUIT





FUEL CONTROL UNIT



May 20/57

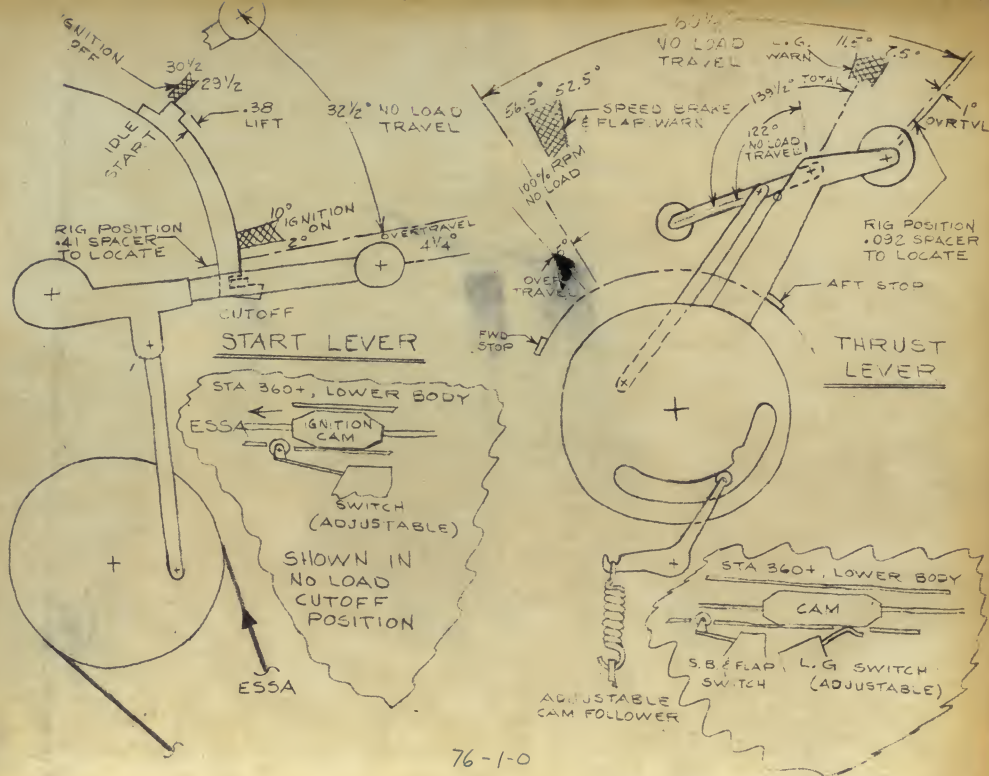
Typical Terminal Service Arrangement
Figure 203

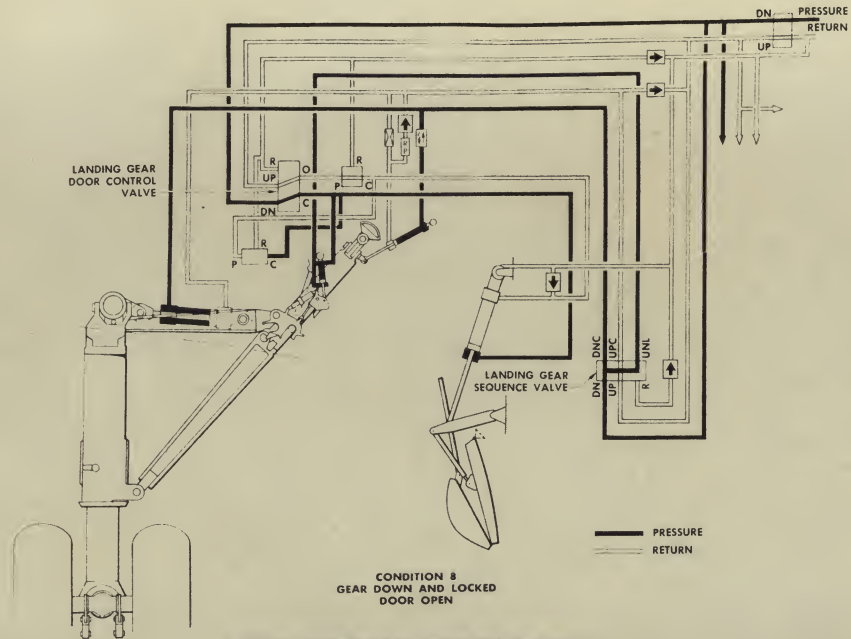
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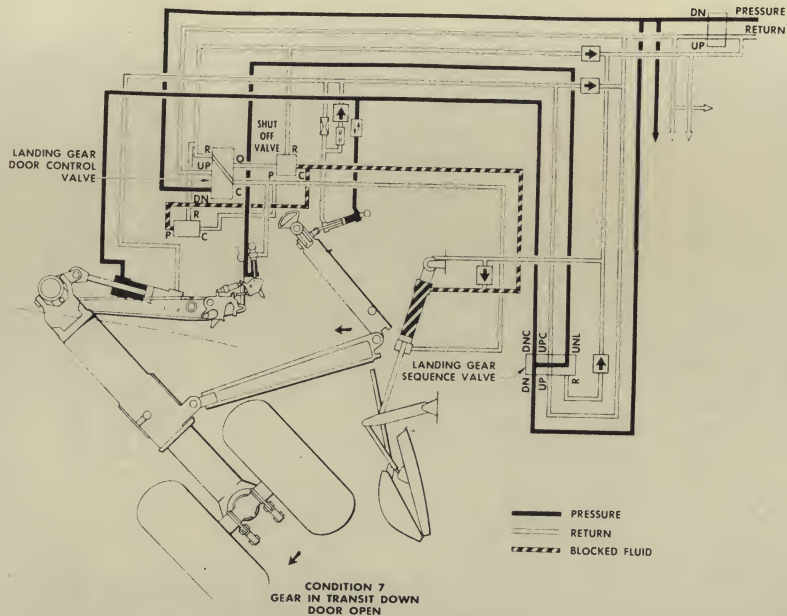
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12-1-0
Page 205

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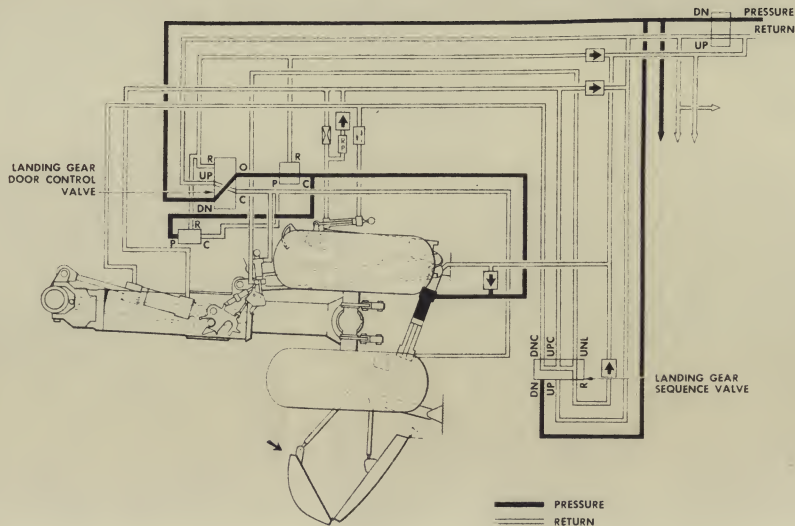
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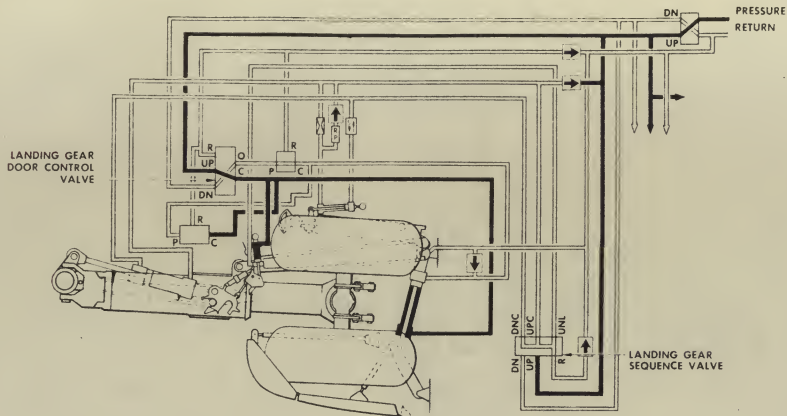


MAIN LANDING GEAR OPERATING SEQUENCE



CONDITION 6
GEAR UP AND LOCKED
DOOR OPENING

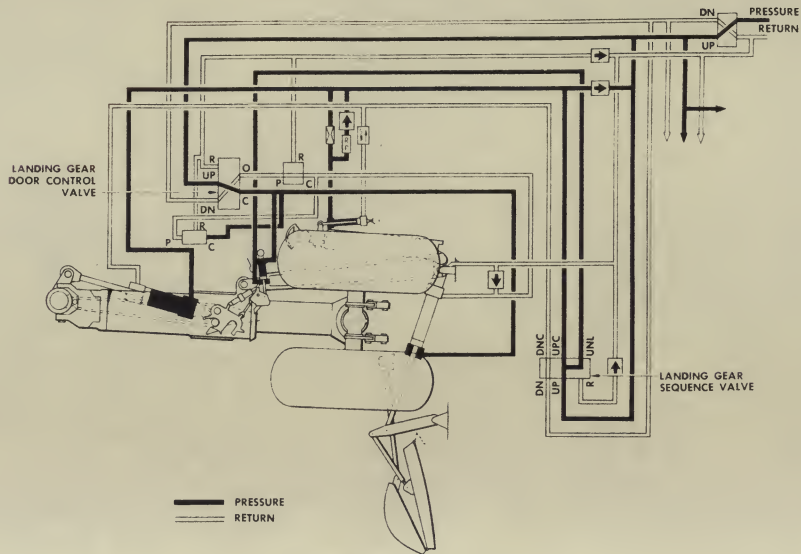
MAIN LANDING GEAR OPERATING SEQUENCE



— PRESSURE
 - - - RETURN

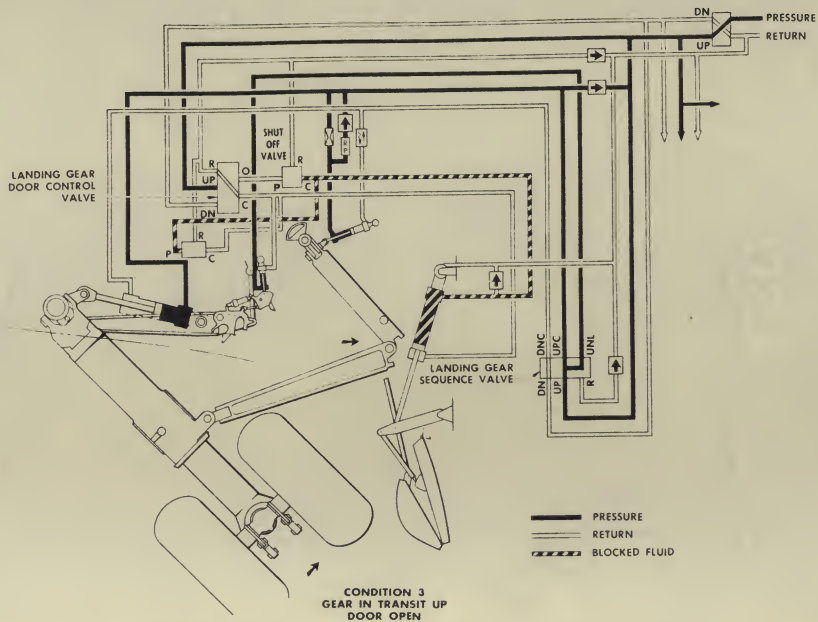
CONDITION 5
 GEAR UP AND LOCKED
 DOOR CLOSED

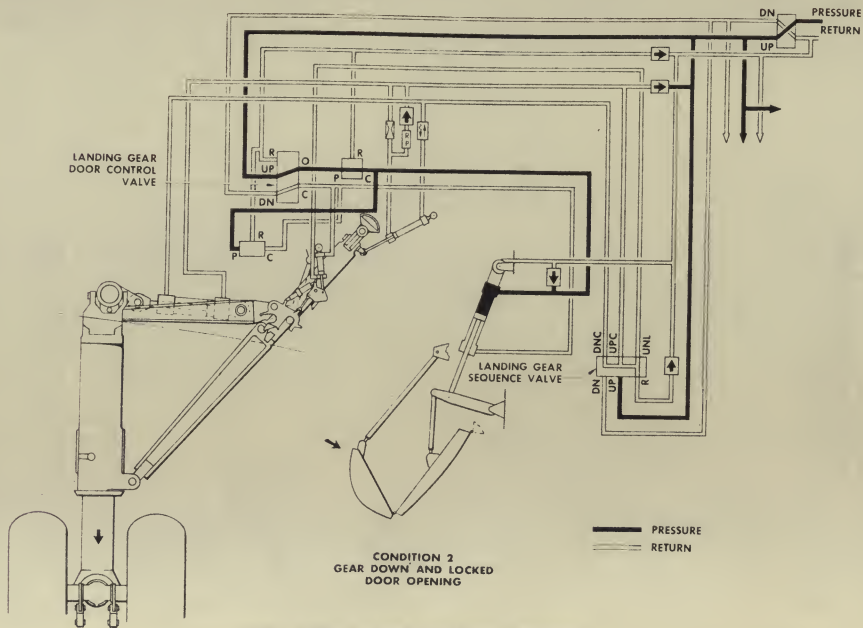
MAIN LANDING GEAR OPERATING SEQUENCE



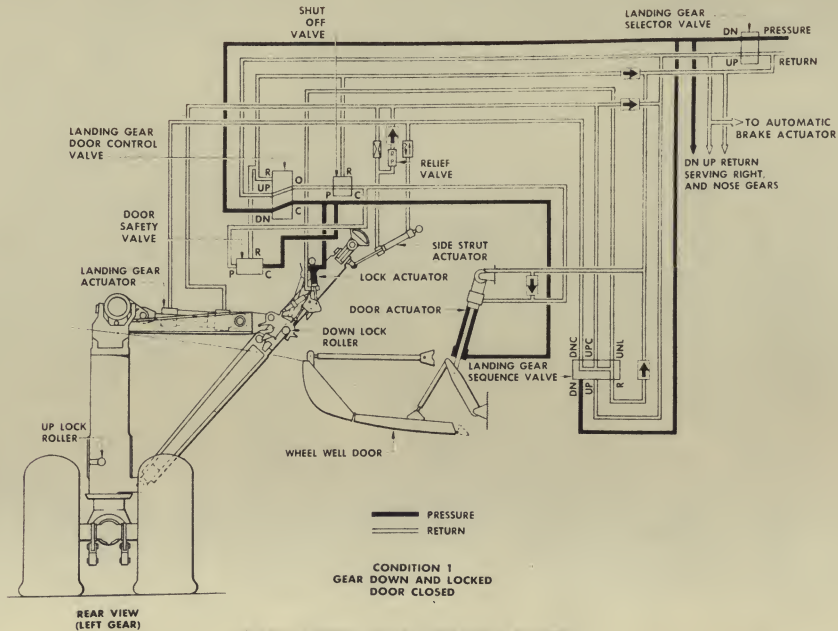
CONDITION 4
GEAR UP AND LOCKED
DOOR OPEN

MAIN LANDING GEAR OPERATING SEQUENCE

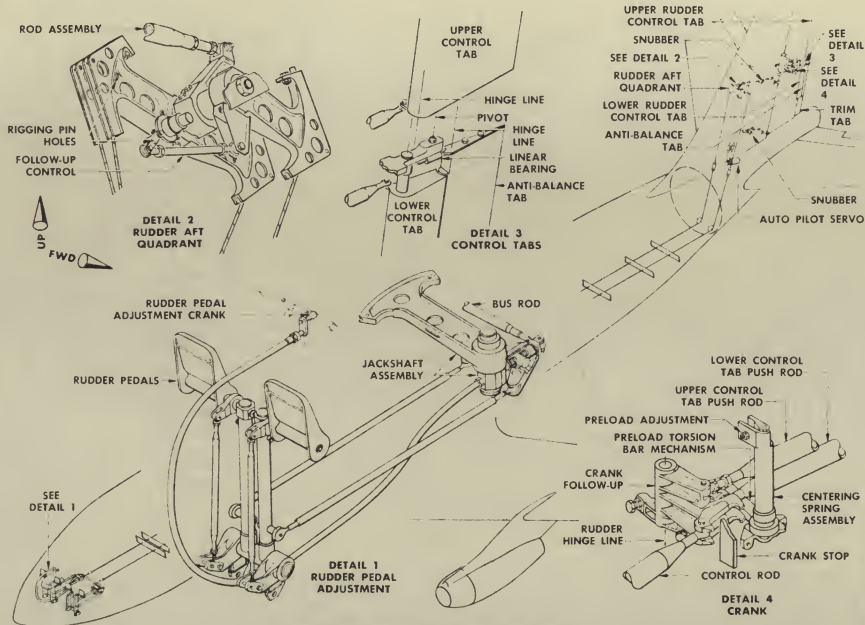




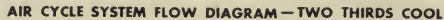
MAIN LANDING GEAR OPERATING SEQUENCE

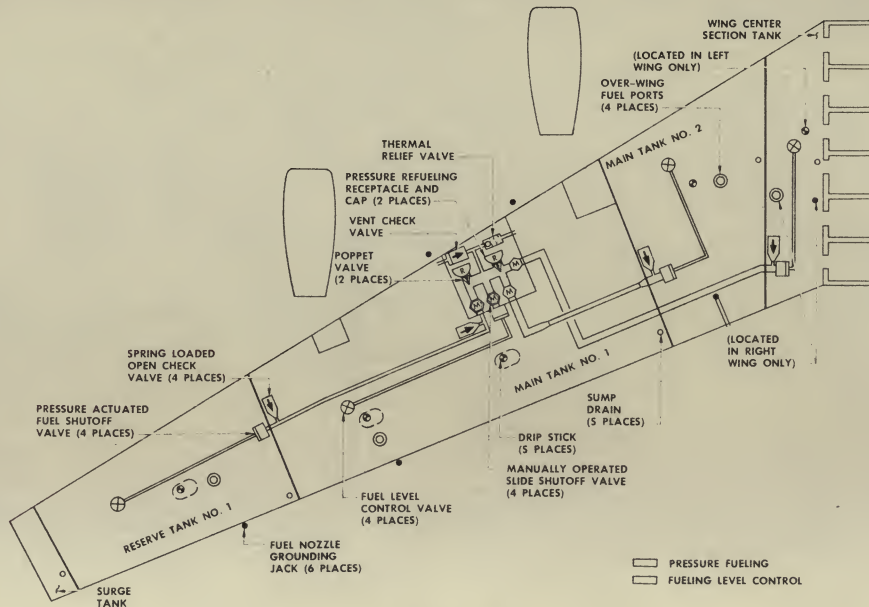


MAIN LANDING GEAR OPERATING SEQUENCE

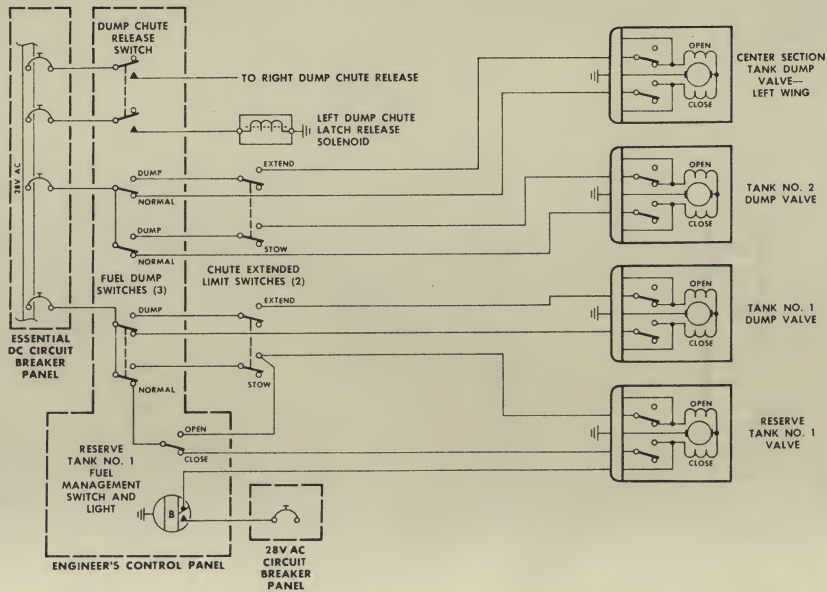


RUDDER CONTROL SYSTEM DETAILS

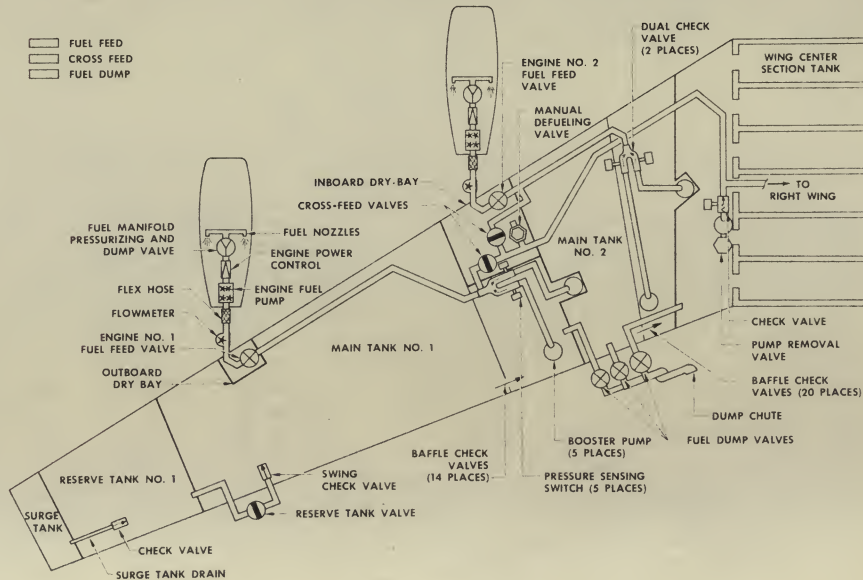




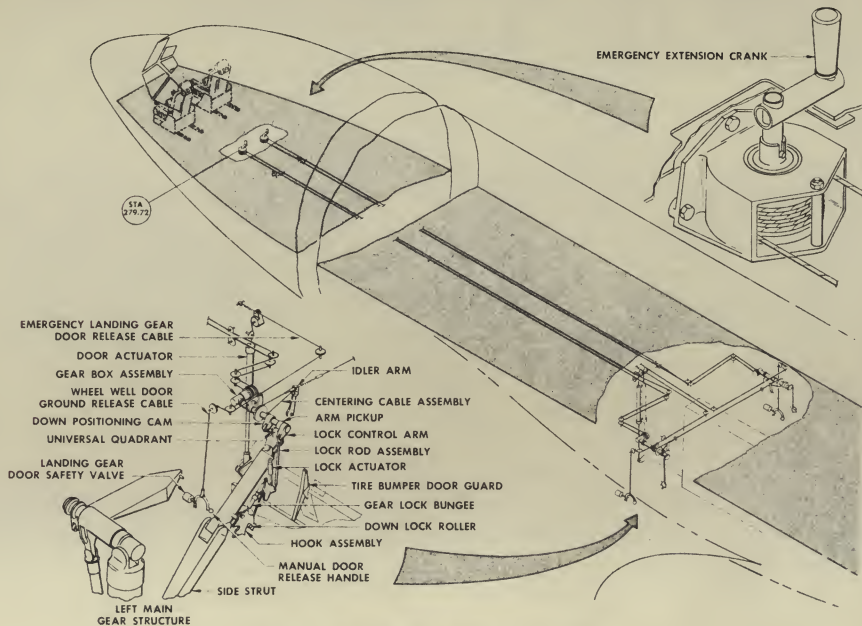
FUELING SYSTEM



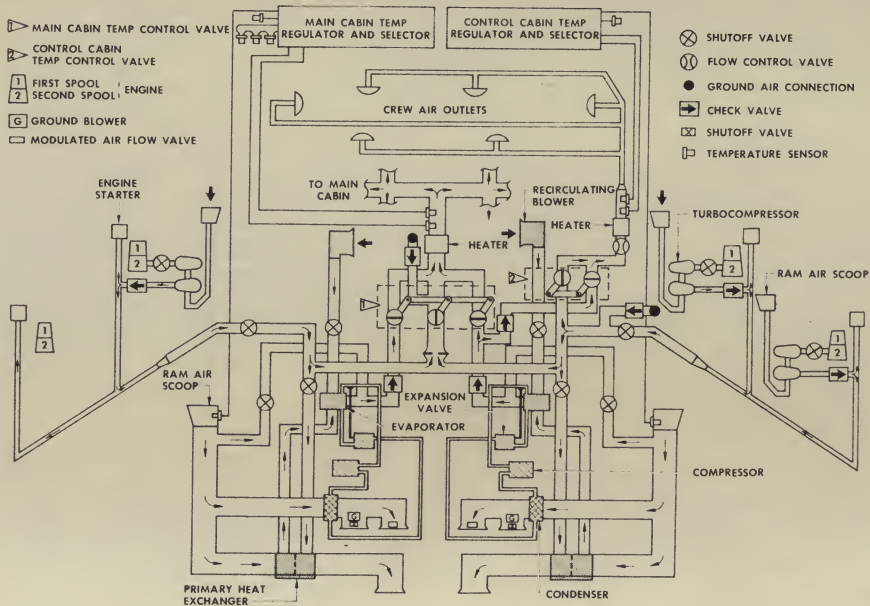
FUEL DUMP CONTROL CIRCUIT—LEFT WING



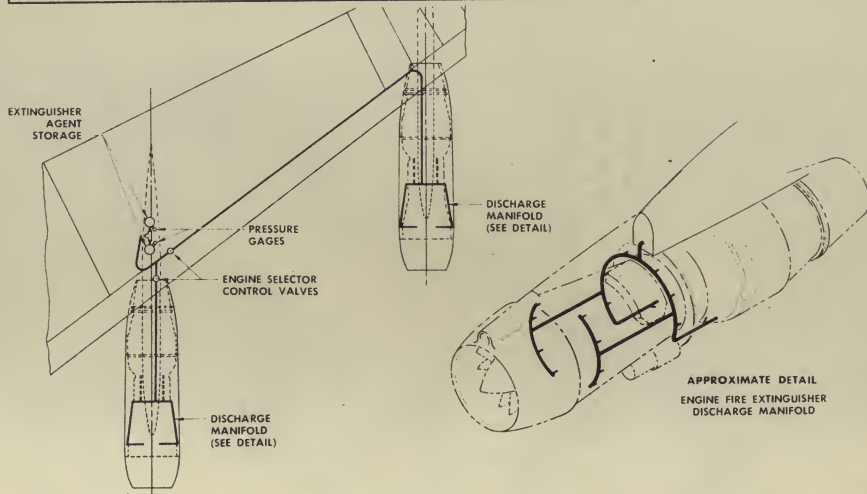
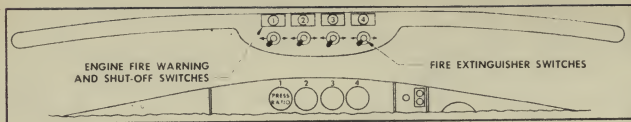
FUEL FEED AND FUEL DUMP SYSTEMS



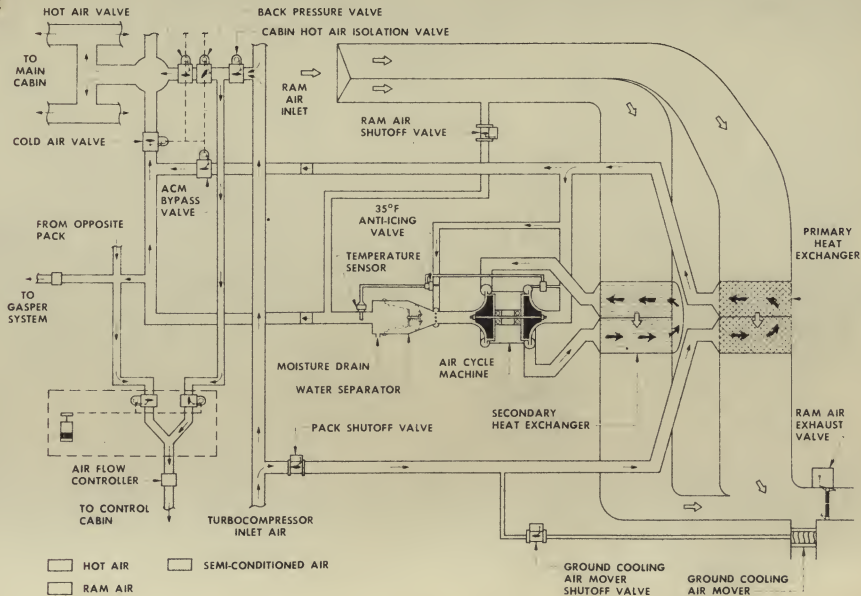
MAIN GEAR EMERGENCY EXTENSION SYSTEM



VAPOR CYCLE AIR CONDITIONING SYSTEM SCHEMATIC



ENGINE FIRE EXTINGUISHING SYSTEM



AIR CYCLE SYSTEM FLOW DIAGRAM—FULL HEAT CONDITION

707

Main Gear

OPERATING SEQUENCE

9 FRAMES



INSTRUCTION BOOK



KENT, WASH.

Technical Specifications
of the
ELECTRONIC TOUCH KEYS
Model Mark V

- | | |
|-----------------------------|---|
| 1. Code Speed | 7 to 55 words per minute |
| 2. Dot-Dash Ratio | 1:3 |
| 3. Automatic Space Ratio | 1 (element) : 3 (letter) : 7 (word) |
| 4. Aural Output | Speaker with level control |
| 5. Output Method | Dry Reed Relay contacts |
| 6. Mode Control | 'AUTO' for automatic spacing of character elements, characters, and words.

'SPACING OFF' for manual control of spacing of elements of each character.

'TUNE' for adjusting associated RF Transmitter.

Warning light when in manual spacing mode. |
| 7. Integrated Circuits | 17 |
| 8. Light Emitting Diodes | 2 ea. LED's
1 ea. BiLED |
| 9. Internal Operating Power | 5 Vdc, Regulated |
| 10. Power Requirements | 120 V, 60 Hz, 7 W |
| 11. Net Weight | 4.5 pounds |

OPERATING YOUR NEW ELECTRONIC TOUCH KEYS
Model Mark V

INITIAL TEST:

1. On-Off Volume control fully counterclockwise.
2. Mode control switch to 'AUTO'.
3. 'SPEED' control fully counterclockwise.
4. External paddle type key in key jack.
5. Plug line cord into 120 volt AC outlet.
6. Turn 'On-Off' control half turn clockwise.
 - a. Green 'SPACE' BiLED will light.
 - b. If either 'DOT' or 'DASH' light is on, touch key paddle to either 'DOT' or 'DASH' position and the light will turn off.
7. Close Dot contact on paddle key.
 - a. Keyer will make continuous dots which can be heard in the speaker. Adjust volume for comfortable level.
 - b. 'DOT' LED will light with each dot.
 - c. 'SPACE' BiLED will turn red during the space between the dots.
 - d. Release key. 'SPACE' BiLED will turn red following last dot, for lengthy period indicating word space, then return to green.
8. Close dash contact on the paddle key and check action of 'DASH' LED and 'SPACE' BiLED.
9. Turn mode switch to 'SPACING OFF'.
 - a. 'SPACE' BiLED will turn red.
 - b. Apply Dot and Dash inputs, check operation of LEDs.
 - c. Note that 'SPACE' BiLED stays red continuously to warn that automatic spacing is not functioning.
10. Turn mode switch to 'TUNE'.
 - a. Continuous tone will be heard in the speaker.
 - b. 'DASH' LED will be on.
 - c. 'SPACE' BiLED will be green.
 - d. Using an ohmmeter, check for 220 ohms resistance between the relay output terminals on the terminal board on the rear of the keyer.
11. Turn mode switch to 'AUTO'.
 - a. No tone can be heard from the speaker.
 - b. 'DASH' and 'DOT' LED's will be off.
 - c. 'SPACE' BiLED will be green.
 - d. The ohmmeter should show infinity between the relay output terminals.
12. End of initial tests.

LEARNING TO USE YOUR ELECTRONIC TOUCH KEYER Model Mark V

Using your Electronic Touch Keyer (ETK) is very different from sending code with a 'Bug' or most other keyers. The ETK performs all the functions necessary to send perfect code with just a few directions from the user. Just a touch of the dot or dash key is all that is required for the ETK to transmit a perfect dot or dash and block the output for the duration of the word space.

Just touch the dot key and then the dash key as rapidly as possible and the ETK output will be a perfect dot, a space equal to the dot length, a perfect dash three times as long as the dot and a word space seven times the dot length.

Practice this simple operation, watching the LED indicators, particularly the space BiLED until you are familiar with this operation.

Next, rapidly touch the dot key, the dash key and the dot key again. Complete this sequence before the dash starts. The ETK will send a perfect 'R', most of it while your hand is off the key. Then instruct the ETK to send a 'K' by rapidly touching the dash key, the dot key, and then the dash key again.

Repeat these steps until you have assured yourself that just a touch of the dot or dash key is all the instruction your ETK requires to send a perfect code element. You do not need to hold either key closed to insure that your instruction to the ETK will be followed.

Next, you should learn to use the letter space. The ETK is programmed to block the output from sending a dot or dash for a period equal to seven dots following the completion of the last dot or dash entered by the key. However, it is also programmed to change this instruction and modify the word space to a period equal to three dots (a letter space) if the next dot or dash beginning the succeeding letter is entered at a certain time with respect to the previous element. This time is not critical. Just touch the dot or dash key at a time at least a dot period after the last element of a letter is completed but before a period equal to a dash has elapsed. The ETK will then transmit the dot or dash after a letter space period has elapsed. This instruction just has to be given to the ETK (by touching a key) during the last 66% of the letter space time. If the key is touched too early (within one dot period) the ETK will send the element after a one dot space (normal separation between elements). If the key is touched too late (after a three dot period) the ETK will send the element after a word space. Practice instructing the ETK to provide letter spacing between dots or dashes.

Using the automatic word spacing properly requires that the first dot or dash of the next word be entered before the word space period has expired. The ETK is programmed to accept a dot or dash instruction after a letter space period has passed, between the 4th and 7th dot period of the word space, complete the word

spacing and then send the stored dot or dash. You may even enter one dot and one dash instruction during this time and the ETK will send them in the same order they were entered following the word space.

A certain amount of practice at low keying speeds is necessary so the operation of the ETK is understood thoroughly before sending at normal keying speeds. Habits developed using a 'Bug' or other code mechanisms may have to be modified to take advantage of the capabilities of the ETK. Once the user is familiar with the ETK, he will be delighted with the machinelike code from his ETK.

THEORY OF OPERATION

CLOCK CIRCUITS

The clock circuit in this keyer is very different from the usual clock or oscillator found in other keyers. It is designed to avoid several faults common to other keyers which derogate their performance. This circuit forces the keyer output to start instantly upon application of an input signal. It has a wide frequency range, allowing a keying rate of 5 to 60 wpm without switching ranges. The clock circuits are designed to minimize the long first cycle oscillation period characteristic of RC oscillators which cause the first dot or dash in other keyers to be nearly 50% longer than succeeding elements. The first dot from this keyer is within 5% of the correct length, a slight amount which cannot be detected by ear.

The clock circuit begins with a pulse generator operating at 10 times the keying speed, or generates 10 pulses in order to form a dot or a space between elements and 30 pulses to form a dash. The output of the pulse generator is counted down by a divide by 10 counter to obtain the correct time period for these elements.

The pulse generator, counter, inverter, gate, and flip-flop act to begin the output signal instantly when an input signal is applied, and reduce the effect of the long first cycle of the clock. When the keyer is not operated, the flip-flop resets the counter to a nine count. The pulse generator is stopped by a signal on its reset input, which holds the output in a low condition. The inverter transforms this to a high at the input to the counter. When a dot or dash input signal is applied, the reset signal is removed, the pulse generator output goes high, the counter input goes low, causing the counter to advance to zero and the output of the counter sets the dot flip-flop, forcing the keyer output to transmit the start of the output signal. At the 10th pulse from the pulse generator, the counter output resets the dot flip-flop, ending a dot period. The effect of any long first cycle period in the pulse counter is reduced by a factor of 10 by the counter, thereby insuring that the first dot or dash are nearly of the correct length.

The gate in the clock circuit removes the reset 9 signal as soon as the counter is set at nine. If this were not done until the pulse generator reset signal was removed, the counter would not respond to the first high output from the pulse generator as transmit time in the internal reset circuits of the counter is longer than the transit time in the pulse generator and inverter. This would cause a 1/10 dot period delay in the output of the keyer for all signals.

SPACING CIRCUITS

There are four flip-flops and a space decoder in the spacing circuits. One FF acts as a gate to turn on and off the pulse generator or clock. The other three FF's provide the letter and word spacing and control the main enabling signal to allow dots and dashes at the correct times. The enabling signal forces the keyer to send as though it were driven by a synchronous clock.

The space gate is reset when a dot or dash input signal is entered and turns on the clock circuits. The space gate FF can only be set by a signal from the 7 space FF when there are no dot or dash signals stored in the memory circuits. The space gate forces the clock to run until all the memories are cleared and 70 additional pulses are generated.

The 1, 3, and 7 space FF's and the space decoder control the main enabling signal so dots and dashes are sent at the correct times. If the memories do not contain signals to be sent, the spacing system blocks the keyer output for a time period equal to a letter space (3 dots). If a dot or dash is entered during the last 66% of the letter space, it will be sent after the letter space is completed. If an input signal is entered after the letter space is completed, the spacing system will block the keyer output until a total time period equal to a word space (7 dots) has elapsed since the previous dot or dash was completed. The keyer is then allowed to send the signal contained in the memory. If no signal is contained in the memory, the 7 space FF will set the space gate, shutting off the pulse generator. Once the first dot or dash is entered the spacing circuit controls the timing of the keyer so all subsequent elements of a message are referenced to the start time of the first signal and occur synchronized to this time. In effect, the asynchronous clock is made to operate in a synchronous mode until the message is completed if the user enters the information at a slightly faster rate than the keyer speed.

The automatic letter and word spacing function may be switched off, and the spacing controlled by the operator. However, the spacing system will continue to control the clock circuits and force the pulse generator to furnish 70 pulses after any element. If the operator does not exceed the normal word space time between elements all dots and dashes will be synchronized with the first element sent although the letter and word spacing may not be correct if the operator's sending is inaccurate.

DOT-DASH MEMORY AND PROCESSING CIRCUITS

The dot-dash memory and processing circuits perform many functions. They accept the input signals from the external key mechanism and eliminate the contact bounce associated with mechanical switches. It resets the space gate, turning the pulse generator on. It generates the main (dot) and secondary (dash) enabling signals. It remembers which of the two input signals were entered first and forces the keyer to transmit the corresponding dot or dash first. While directing the keyer to transmit one signal, it will accept and hold the other input signal until it can be sent in the correct time frame. It removes the input signal from the memory after the corresponding element has been sent. It will allow multiple dots or dashes to

be transmitted by holding the external key closed while accepting and holding an input signal of the opposite element for transmission after the sequence is completed.

These functions are accomplished by six FF's and 8 gates arranged in two interconnected channels. The dot-dash gate detects an input signal, generates the main enabling signal and resets the space gate. A memory FF accepts the input signal, eliminating the contact bounce, and sends it to the acceptance FF when the lockout gate is not disabled by the other channel. The acceptance FF seeks to set the reset FF through the response gate and disables the lockout gate in the other channel. This gate will allow the passage of the trigger to the reset FF when the dot or dash FF associated with it is set. The reset FF arms the reset gate. The reset gate sends a reset pulse to the memory FF and resets it at the end of the transmitted dot or dash. The memory FF resets the acceptance FF which in turn arms the lockout gate in the other channel.

DOT-DASH GENERATOR

The dot-dash generator forms the dot and dash signals sent to the indicator and output circuits of the keyer. It also provides the correct spacing between elements. The generator consists of two FF's. The first FF forms the dot signal. A dash is formed by causing the first FF to set the second FF when the dot signal is completed. Then the dot FF is set again and both FF's are reset to end the dash. Operation of these FF's is triggered by the clock.

The main enabling signal controlled by the spacing circuits is applied to the dot FF so it can respond to the clock signal from the counter. A secondary enabling signal, controlled by the dash acceptance FF in the dash memory and processing circuits is sent to the dash FF when a dash signal is to be formed.

The outputs of the dot and dash FF's are combined in a gate. The output of this gate controls the keyer output relay.

INDICATOR CIRCUITS

The keyer has a sidetone oscillator and speaker to monitor the dot-dash output. There are three LED indicators which indicate the processes occurring in the internal circuits. These LED's are labeled 'SPACE', 'DOT', and 'DASH'.

The 'DOT' LED is red and lights during the time a dot is being transmitted by the keyer.

The 'DASH' LED is red and lights during the time a dash is being transmitted by the keyer. It also lights when the mode switch is in the 'TUNE' position, indicating that the output relay contacts are closed and the keyer is transmitting a long dash.

The 'SPACE' BiLED is a dual color LED, green and red. One of the two colors is always lighted when the keyer is on. When the color is green, it indicates that

an input signal will be accepted and sent instantly or that a dot or dash is being transmitted. When the BiLED changes from green to red, it indicates a space between elements, a letter space or a word space is occurring and any input signal entered will be accepted but held until the space period is completed.

While the 'DOT' and 'DASH' LED's continue to indicate when these elements are being transmitted with the mode switch in the 'SPACING OFF' position, the 'SPACE' BiLED will be red as a reminder that the user is responsible for the proper letter and word spacing.

YOUR ELECTRONIC TOUCH KEYER WARRANTY
Model Mark V

The Electronic Touch Keyer is a state of the art device and is the product of the latest and most up-to-date engineering and production experience. It will give you years of satisfactory service if operated in accordance with the simple instructions furnished.

During the first six months of ownership by original purchaser, if any repairs should be necessary through no fault of yours, the factory will repair free of charge and will also pay return shipping charges.

CUSTOMER SERVICE

If during your first six months of ownership you require service, write to the factory and include:

Your name and address
The serial number of your Electronic Touch Keyer
A description of the problem or difficulty

After receipt of your letter, the factory will ship the necessary part or authorize shipping the keyer back to the factory for repair.

After six months, if factory repairs are necessary, our service department will repair the keyer for a \$10.00 service charge plus parts and return shipping costs.

CRS Company
P.O. Box 1125
Kent, Washington 98031

